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JUNE 1980

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The Business Outlook

A Mid-Year Review

Division of Research
School of Business / Indiana University

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INDIANA BUSINESS REVIEW

VOLUME 55

JUNE 1980

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Indiana Business Review (U.S.P.S. Pub. No. 261780) is published bimonthly, in February, April, June, August, October and December, by the Division of Research, School of Business, Indiana University, Bloomington and Indianapolis: Schuyler F. Otteson, Dean; H. D. David, Administrative Director. The Division of Research is a member of the Association for University Business and Economic Research (AUBER).

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Second class postage is paid at Bloomington, IN 47405. Subscriptions are available to Indiana residents without charge.

THE BUSINESS OUTLOOK
A Mid-Year Review

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The Panel Discussion was presented at the Thirty-Fourth Annual Business Conference in Indianapolis on April 29, 1980. Sentences that update participants' remarks appear in italics in brackets.

The outlooks from various Indiana cities were written during the first weeks in May.

INTRODUCTION TO THE MID-YEAR REVIEW: A MESSAGE FROM THE DEAN

These are times of considerable doubts and concern about the American economy. The daily news reports give indications of an adverse turn in employment and output but some favorable progress on the inflation front. On April 29 of this year a panel from the School of Business, joined by a distinguished member of the business community, offered their views on the balance of this year and the outlook for the years ahead.

In the following pages we offer the comments of this well-received panel as they were made at the Thirty-Fourth Annual Business Conference of the Indiana University School of Business. I asked each panelist to first consider short-run forces and then turn to the longer-term outlook. Their views are reproduced here as they were presented at that time because the news of the past few weeks has not dated these remarks but reinforced them. The points made by the panel about inflation, international factors, the midwestern economy, and the automobile industry have continued validity.

In addition, this issue of the *Indiana Business Review* continues our practice of a semiannual review of business conditions in the various areas of the state covered by our colleagues. Local conditions reflect national issues, but their diversity demands specific attention.

The stresses of today, however, can be overplayed. The balanced views in this issue remind us of the continuing problems as well as the sustained promise of the nation's economy.

Schuyler F. Otteson, Dean
School of Business
Indiana University

The National Economy

THE ECONOMY IN PERSPECTIVE: A PANEL DISCUSSION

This panel discussion took place at the Thirty-fourth Annual Business Conference, of the Indiana University School of Business and the School of Business Alumni Association, in Indianapolis on April 29, 1980. The discussion was recorded and then transcribed for use in this issue of the Indiana Business Review.

Panelists were: Schuyler Otteson, Dean; Eugene Brady, Chairman and Professor;† Lawrence Davidson, Assistant Professor;† Michele Fratianni, Professor;† Jacques Maroni, Environmental Research and Energy Planning Director, Ford Motor Company, Dearborn, Michigan; and Morton Marcus, Research Economist, Davision of Research.**

WHERE ARE WE?

INTRODUCTION

Eugene Brady. Most of you are aware that the nation is on the brink of a recession. We'll talk later about the length and the magnitude of that recession, but the question we have to address is, What happened to the 1979 recession that most everyone was expecting? Most forecasters thought we'd have a recession in late 1978, and in October 1978 Mr. Blumenthal, then secretary of the Treasury, made his first forecast that interest rates would turn around and start to decline with a decrease in economic acitivity.

We went through the four quarters of 1979 without a recession, as our outlook panel for last year had correctly forecast. The growth rate for the first quarter of 1980 was a +1.1 percent, stated at a seasonally adjusted annual rate. There are indications that the economy at the present time is in very much the same position it was in late 1973 when we had the worst post-war recession.

Why didn't we have a recession in 1979? One of the major reasons is that monetary policy was simply too easy for the entire calendar year. What we had was a negative real rate of interest, and when it was adjusted for taxes, the rate of interest was negative for the last two or three years. As a result, mortgage installment credit was attractive. Consumers bought housing, automobiles, and durable goods of all kinds. Even though real income was flat or declining, we had a surge of credit. Even the Saturday Night Massacre of the Fed on October 6, when the discount rate was up to what we thought was a horrendous twelve percent, didn't seem to turn off the money supply. The Fed changed their definition of the money supply and in just the last few weeks we have had a real increase in monetary stringency and the real rate, for the first time, has become negative and sharply negative. You know the implications of that for housing, for auto-

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mobiles, and for consumer installment credit. But here we are, on the brink of a recession, and we'll try to figure out, as the panel goes on, how bad it's going to be.

INTERNATIONAL SETTING

Michele Fratianni. My job is to put the U.S. economy in the worldwide setting. I want to start by making some remarks about 1979, which was characterized by very brisk expansion in industrial production in Western Europe and Japan, stable unemployment rates in those countries, and a rising inflation rate, plus continuous up-and-down, yo-yo patterns in the exchange markets.

The volatility in the exchange markets of various currencies reflects, to a large extent, the fact that inflation rates in the world are different. The inflation rate goes from a minimum of four percent in Germany to rates of thirteen percent in this country in 1979, up to eighteen percent and nineteen percent in Italy and the U.K. Given the structure of inflation rates in the world, it is no wonder that the volatility was as high as we've seen.

In addition, the exchange market reflects a variety of shocks that have come upon it, such as oil increases, and a variety of country effects that are reflected immediately in this market, just as the stock market reflects news of importance for a company. The dollar has been able to recover somewhat in the exchange market, largely because of interest-rate increases that have been at a record level, not because of an improved performance of the U.S. economy. The British pound, which for many, many years has been a very weak performer as a currency, has recovered, not because of the underlying fundamentals of the U.K. economy, but mostly because the oil discoveries in the North Sea have given a boost in the net wealth of that nation. Britain has really improved the performance of the pound by joining, not formally but informally, OPEC.

The big event of 1979 was the increase in oil prices, the biggest increase since 1973. The oil price jumped about sixty percent, and came at a time when most European economies, and that of Japan, were trying to do a very fine balancing act, propping up sluggish economies, on the one hand, and trying to deal with record high inflation rates, on the other. The German Government, for example, was already on an expansionary course at the end of 1973. Germany had increases in government expenditures and was planning to cut taxes. The Prime Minister of France had launched an almost historical campaign to make the French economy competitive by striking down a variety of regulations that had been plaguing economic performance. The French economy has always been highly regulated, from the price of bread to the price of industrial products. Everything was mandated by the Treasury. In the United Kingdom, Mrs. Thatcher was on a similar course, striking down regulations that were hampering the growth of the British economy.

The uncertainty in 1980 is not so much about the extent of the recession, but rather the kind of reaction policymakers will have to this enormous price increase for oil. Are the policymakers going to accommodate the jump in oil price with an expansionary monetary policy? Or are they going to be conservative, that is keep down the money supply so as to control the rate of inflation—not cause it to abate, but control it—while perhaps leaving the budget deficit to take up the slack due to recessionary phenomena?

My forecast is that caution is in order. Most policymakers have been burned by the 1974-75 experience in inflation rates. They are, therefore, willing to be much more conservative with money policies and to let the budget adjust, perhaps, to recessionary tendencies. The overall term I will apply for 1980 is *stagflation:* higher inflation rates, and lower output all over the world.

This naturally fits back into the U.S. economy to the extent that the U.S. economy exports to these industrialized nations. I will not count on the dollar to perform as well in the exchange markets as it has in the last few months. That performance was somewhat marred by historically high interest rates that attracted foreign capital into the U.S. The underlying factors in the U.S. are high inflation rates, much higher than all over the world. Compared to Germany there is a differential of fourteen to fifteen percent in inflation rates, and there are similar spreads compared to the Netherlands and to Belgium. So with respect to the major currencies, I would say that the dollar will decline in 1980. For those who want to invest in foreign assets, I recommend, keep short and keep diversified.

CURRENT INDICATORS

Lawrence Davidson. The inflation rate, the unemployment rate and the interest rate are probably three of the most widely examined indicators of the economy's health. Let's take a look at 1979 or where we've been. The unemployment rate was low all during 1979 and averaged about 5.7 percent. But it started to rise. As recently as this March it was up to 6.2 percent, and all indications are that we're going to see it rise quite a bit for the next few months. *[Since the conference it rose to 7 percent in April and 7.8 percent in May.]* The inflation rate, as measured by the Consumer Price Index, has been increasing ever since about 1976. It was 10 percent in 1973 and 13 percent in 1979. In the beginning of 1980 it has already been up to about 17 percent. Finally interest rate behavior has been extremely erratic this year. For example, the rate on 90-day treasury bills has risen by almost 600 basis points from March 1979 to March 1980. Even long-term bonds have shown similar, although not quite as pronounced, behavior, increasing about 350 points. In just the last couple of weeks interest rates appear to have peaked. The question right now is, Have they really finally peaked? If so, how much are they going to come down, and how soon?

The behavior of interest rates, employment and inflation is very complex. Rather than a superficial discussion of all the factors, I want to focus on only one of the crucial aspects for 1980. Modern macroeconomic theory links together these three variables by expectations, particularly inflationary expectations. It's not so much the precise value of those expectations that matters. Rather, it's *how they're formed*. Simply put, the expectations hypothesis says that when economic agents come to anticipate a rise in the future inflation rate, this anticipation is manifested in their current behavior and leads to increased wages, increased costs of doing business generally, increased interest rates, and probably a change in the unemployment rate. I say "probably" because the change in the unemployment rate depends on the correctness of the anticipations. For example, if workers overanticipate inflation, then this theory suggests that the unemployment rate will soon rise. One commonly accepted assumption about anticipations is that they are largely affected by recent inflation experiences. Economists call these adaptive or extrapolative expectations. If they're formed this way then the accelerations of inflation in the past fifteen months imply accelerating wages, higher unit costs, and even higher interest rates ahead. Coupled with the forecast of declining economic activity, this certainly implies lower demand in the face of rapidly rising costs. Thus, under adaptive expectations we would forecast a deep recession, a much higher unemployment rate, a mixed showing for interest rates and inflation, and perhaps an inflation rate in the neighborhood of thirteen percent again in 1980.

A recently espoused assumption about inflationary anticipations asserts that these anticipations are based on an analysis, no matter how

crude, of the actual factors that should affect the inflation rate in 1980. Economists call these rational expectations. If they are truly rational, this year we will see a very different picture from the one I just described.

Assume that the rate of growth of economic activity, government policies, oil shocks and housing prices are the most important predictable factors that affect the short-term behavior of inflation, and, therefore, will affect the current anticipation of inflation as well. We've been hearing daily that we're in the early throes of recession, that government policies are going to be restrictive over the near term, that there could be at least a temporary cessation in the rise in oil prices, and perhaps in housing prices too. If this is all properly digested, then the anticipation of inflation will be much lower than in my earlier scenario, and we may be talking about overall expectations in the 10 to 12 percent range instead of in the 13 to 15 percent range. This would mean less wage pressure, a slower rise in unit costs, and perhaps even a precipitous fall in both inflation and interest rates. */Since this forecast, some short-term interest rates have fallen by about 1,000 basis points./* The further implication is that if these rational anticipations are more correct and we have planned well for the coming recession, then it will be less deep and prolonged, with only a moderate rise in the unemployment rate by year-end. Such a scenario would produce the following forecast by year-end: inflation of 8 to 10 percent; an unemployment rate averaging around 7.5 percent; and short-term interest rates around 9 to 10 percent. One caveat: the world is probably neither purely adaptive nor perfectly rational. What will happen will probably lie between the two forecasts that I've discussed. Until we have a better way of looking into people's heads we really have very little to go on in terms of describing which set of assumptions about anticipation people will follow and, therefore, which set of assumptions to guide our forecasts.

SPECIFIC SECTORS

Eugene Brady. It's clear that we're at the onset of a recession but no one knows how long and how deep it will be. I'm going to discuss the real components of the economy and make some judgments about this recession.

Things look a lot like they did in 1973, but the one difference seems to be with inventories. The '74-'75 recession, could have been tagged an inventory recession, because a big build-up of unwanted inventories had to be run off, and were run off in 1974. Current data give the impression that inventory/sales ratios, that is, the ratio of inventories to one month's sales, are at a fairly low level by historical standards—about 1.48, stated in current dollars. If you put them in 1972 dollars you get quite a different picture. The inventory/sales ratio has gone up quite a bit because inventories are valued at the time they are acquired, rather than at current dollars. If you put them into constant dollars you get quite a different story, so the inventory picture isn't quite as bright as many people would believe.

I may be a little less optimistic than some, but I'm expecting a recession of four quarters' duration. It will start the second quarter of 1980 and run through the first quarter of 1981. Let me tell you about some of the sectors, and then I'll wind it up with my forecast. This is not pleasant, but I think it's necessary.

Housing has fallen badly. In fact we're probably in the beginning of the worst housing cycle of the post-war period. It's going to be worse than '74-'75. The indicators now are that housing will be less than a million for calendar 1980. My guess is that there will be about 970 thousand housing starts for calendar 1980—a bad year for housing. Most of the consumption function studies depend on real income and on assets. Nominal income has been flat the last couple of months, so that with inflation, real income is then falling. People took quite a beating on assets in the last two or three

months. Existing housing prices have softened. Last year, we got more consumer installment credit financed by second mortgages and refinancing of housing (about forty billion) than we did by consumer installment credit itself (about thirty-two billion). We're not going to have that bailing out for consumption this year, because housing is moving very slowly and existing houses that are selling are offered on contract rather than with financial arrangements made by a financial intermediary.

Really tight credit has come at a peculiarly awkward time for **agriculture** because farmers are having a hard time getting credit for their spring planting. Some of the tightest credit binds are in the small towns in the agricultural sectors. Agriculture is in a squeeze. I'm not talking just about long-term capital formation, or fertilizer, or plant and equipment, or tractors; I'm talking about basic needs. For instance, the slaughter price for pork is less than it costs to grow pork. The slaughter price is twenty-nine cents a hundred; it costs forty cents to get a hog to slaughter weight. There are a lot of people taking a licking in agriculture.

In **automobiles** we've seen the layoffs of the Big Three, and we know the problems of Chrysler. The threshold for imports normally has been 15 percent; we find imports now are in the neighborhood of 25 percent. If dealers had not run into supply shortages, mainly of Japanese imports, the import threshold, the proportion of imports to total sales, would have been even higher than 25 percent. Of that, Toyota and Datsun have claimed 21 or 22 percent of the market. We produced 8.23 million autos in '79. I expect it to be down about 16 percent to about 6.9 million autos this year. Again, automobile manufacturing is tied to energy, and the outlook for energy is uncertain.

It's difficult to examine these major sectors and come up with a very optimistic picture. We don't have any recent figures or forecast on plant and equipment spending, business fixed investment. When the McGraw-Hill survey and the Department of Commerce surveys come out, I expect them, and other indicators, to show that it's going to be a down year.

Let me give you a **forecast by quarter**, at seasonally adjusted annual rates, for real output. For 1980 first quarter, it was + 1.1, for second quarter it should be −3.8, for third quarter −2.8, for fourth quarter −1.0.

The real output for first quarter 1981 will be −0.8. During the second quarter it will turn around at +0.5. It's rather awkward politically in a sense, because unemployment is always a lagging series. I would guess that the peak of unemployment will come to about 8 to 8.2 percent, and it will fall just about November 3, 1980 (one day before the national election).

AUTOMOBILES

Jacques Maroni. "Short term" has a different meaning for us. The cycle to plan a new car is sixty months, or five years. We decided a long time ago what cars we will be producing in 1982. That's part of our problem. The transition from having too few big cars in 1976 to having too few small cars in 1980 is at the core of the employment problem in automobiles in 1980. The market is divided into two segments. One segment is undersupplied; the very fuel-efficient automobiles. The other segment is demand limited; we have excess capacity to produce large automobiles. We do have a good news, bad news story. Our future is fantastic, because most of the automobiles out there are already obsolete, and we have to replace them. The bad news part of this is that most of our assets are already obsolete also.

You may have heard the following story. Socialism is when you have two cows and you give one to your neighbor. Communism is when you have two cows and the government takes both of them and gives you the milk. Facism is when you have two cows, the government takes

both of them and sells you the milk. And bureaucracy is when you have two cows, the government takes both of them, shoots one of them, milks the other and pours the milk down the drain!

Bureaucracy in our case means regulation of emissions, safety, fuel economy, noise, damageability, and so on. Bureaucracy uses up all of the money we used to make when we were profitable, and in 1980, as you know, we're not. It is going to be quite a problem for us to make the changeover, but I have a lot of hope, and I think we can make the changeover to very fuel-efficient automobiles.

MIDWESTERN ISSUES

Morton Marcus. I don't have to cover as wide a geographic area as my colleagues, just five states from Ohio to Wisconsin. If you look at three of those states, Ohio, Indiana, and Michigan, you have the recession of 1979 that the other economists have missed, because in this part of the country we have been in what amounts to a recession. Employment here has been down in the automobile industry and in the industries that supply the automobile and truck manufacturers. Ultimately, then, declines occur in the steel industry as well. In this part of the country, we are the metal benders, the metal formers, the metal shapers. The employment in primary metals has been down about nine percent. Employment in transportation equipment has been down about fifteen percent.

We are manufacturing states. We are thought of as part of the great farm belt, but we are primarily manufacturing states, and we have been in this recession since approximately April 1979. If the rest of the country is going to get worse, so are we—even more so. Consumers are going to start cutting back on their purchases of other consumer durables that we produce. As the housing market sinks, as new homes are not being built, then the kinds of things that people put into those new homes will not be bought. The big ticket items—refrigerators, washing machines, dryers—the kinds of things that are produced in the Midwest will not be bought. Unemployment rates in the nation may be around eight percent, but unemployment rates in some areas of the Midwestern states have already exceeded ten percent. In fact, some of our Indiana communities are already approaching twenty percent unemployment. They're trying to match the prime rate! Unemployment rates will continue to increase. As Gene Brady says, unemployment is a lagging indicator, and we're going to have a good deal of bad economic news in the Midwest until the national economy picks up, especially that component of the national economy upon which we depend so heavily, the automobile.

THE DECADE AHEAD

INTERNATIONAL CONSIDERATIONS

Michele Fratianni. In the '60s it was easy to be a forecaster. You could forecast by extrapolating on last year's trend and adding a fudge factor. It was also fun. More often you would tell a good story, rather than a bad one. Now it's unpleasant on both counts. You have to be sharper with your wits because the cycle goes up and down and you cannot extrapolate, and when you tell the story you're left with a very sour feeling because it's always, or most often, a sour story. I don't see anything but bad news for the '80s. I am a pessimist, and I'd like to share some of the pessimism in the form of seven pronouncements that I think are forthcoming not only for the U.S. but for the world economy.

1. We're going to be faced with a price increase of oil relative to manufactured goods. This means that the OPEC countries are going to extract oil taxes increasingly by

pricing goods not in dollars but in terms of a constant purchasing power basket, such as the SDRs or gold. Gold is likely to be one of the favorite candidates to price oil. This means that the terms of trade for manufacturing economies, the U.S., Western Europe, and Japan, will be falling. This means that for every car we produce, we're going to have to exchange for less oil. Oil is going to cost us more and more.

2. The unemployment rate is likely to rise in the first half of the '80s throughout the world, for a variety of reasons, but most importantly because demographic factors are unfavorable. The working-age group is going to rise until 1985-1986. Some respite will be forthcoming in the latter part of the 1980s.

3. The rising trend of the unemployment rate and falling trend in output will depend a great deal on the cost of labor. That is, we can rectify the unfavorable trends of the demographics by lowering the price of labor, by lowering the unit labor costs. Now that's easy to say, difficult to achieve. I don't see anything in the picture throughout the world that will suggest real wages will be falling spontaneously. Organized groups will resist a decline in real wages.

4. Government, under pressure from various groups, will be asked to do impossible jobs, to reconcile irreconcilable goals.

a. They will be trying to neutralize foreign producers' competitive advantages. I do not foresee the Smoot-Hawley Tariff Act of 1930, but we're moving towards that trend. We're going to "control" foreign trade, control it for the best interests of groups A, B, and C. How are we going to do it? We're going to use administrative rules and enforcement controls. We're going to use subtle measures that are very difficult to detect and very difficult to fight against. Such measures are already being used all over the world for a variety of products. For example, cheese from France going to Italy is left at the border for three days until it spoils. At that time the health inspector will come and say, "The cheese is good, you can let it come in." But the cheese has no value to the market. Another example is Japanese TV sets that are not allowed in Italy because they don't have Italian instructions on the back, and so on.

b. Governments will be trying to subsidize industries. Now that was true in the late '60s and early '70s throughout Western Europe. A lot of elephants—white elephants—were subsidized at taxpayers' expense. It's now coming to the U.S. Milton Friedman used to say very cogently, about ten years ago, "What's the U.S.? It's ten years behind the U.K.," he would say, and with that phrase, he would capture the mood towards more and more subsidy and government intervention. Now if we plot what we're doing today in the U.S. with a variety of sectors and plot it back to Europe ten years ago we can see a lot of matching. I think subsidy is coming.

c. Government will try to prop consumption or these selected types of investment. They will make more transfer payments to us—households and firms—and provide less money for productive investment.

d. The government will experiment increasingly, even though there are obvious failures, with wage and price controls, full employment policies, profit, and corporation accountability.

5. The economic cycle will be shorter and deeper. The recession will become relatively deep and long-lived compared to the past, and the upswing will be relatively

mild and short-lived. In spite of what we hear about gradualism, stop-and-go policies will be prevalent. Stop-and-go policies are inherent in the political system, and will not stop unless the incentives of politicians are changed.

6. Inflation will remain not only high, a fact with which we could live rather well, but variable, and it is the variability rather than the high level of the inflation rate that is going to hurt. The prediction of a variable inflation rate comes because of stop-and-go policies. Priorities change: one day the fight is against high unemployment rates, the next day it's against high inflation rates, so we have a yo-yo cycle.

7. Exchange rates will be flexible for a long time, reflecting the fact that inflation rates throughout the world will not be uniform. Some countries will have thirty percent inflation rates while countries like Switzerland, Japan, and Germany may have only three or four percent. So long as inflation rates diverge, exchange rates will have to diverge as well.

There is a caveat to all my bad prognostications: the age of Keynesian economics might eventually come to an end. After making so many mistakes, we'll be making some more in the '80s but we'll finally see the light. We'll see that we cannot control the economy the way we control a yo-yo. And we're going to have to reassess not only macroeconomics but the application of macroeconomic principles.

LONG-RANGE INDICATORS

Lawrence Davidson. The long-term outlook for inflation, unemployment, and interest rates is for much more of the same. That is, we should not look for the current decade to be any less turbulent than the '70s. Oscillation and marked fluctuation in economic activity should be typical of the 1980s though I may be a little more optimistic than Mike Fratianni when I say that I believe that by the end of the decade things should progress a little more. Such a forecast is both optimistic and pessimistic. Certainly no one looks forward to the kinds of ups and downs we've had in the 1970s recurring. At the same time I may be overly optimistic in thinking that we will have begun to solve the mystery of economic fluctuation as early as the end of 1980. This forecast is conditioned on certain assumptions about the world; for example, world political stability, U.S. economic and international policies, and domestic institutional change.

Continued international political and economic instability is likely as the rich and poor nations of the world attempt to divide a world economic pie that is growing very slowly. We have to wait and see about various important developments that concern the evolution of the EEC; the cohesiveness of OPEC and non-OPEC countries that export oil; the behavior of other important raw material-producing nations; resolution of conflicts between middle eastern nations, far eastern nations, African nations, etc.

While these foreign considerations are bound to grow in importance we can't neglect economic policies at home. U.S. policies of the last ten years have led to an environment where firms have refused to accumulate capital at historic rates. We are already beginning to get a glimpse of the problems this can cause in the long run in terms of slower productivity and output growth as well as a higher minimally stable inflation rate. Politicians are beginning to pay lip service to supply-side remedies, but President Carter says these policies can't be enacted until the budget is balanced, so what does that tell you about the imminence of these programs? It will take a long time before they begin to offset the neglect of the past. Of course, even if such supply-side remedies are attempted, demand-management policies, the traditional monetary and fiscal stop-and-go policies that have been referred to, will still be

conducted in the 1980s and will still affect our economy. Today the opinion is widely shared that since the rewards of such activity are still an important lure for politicians, we can expect little more than rhetoric about budget balancing. We will continue to hear government officials in high places telling us that if the unemployment rate gets a little too high for their liking then all bets are off for balancing the budget and for future economic stability.

The key to my more optimistic forecast for the '80s has to do with the fact that the share of the government will continue to grow until at least 1985. Let me explain this. The period between now and then will also be one with extremely high fluctuations, high and variable inflation rates and interest rates, and rising taxes. This will be the perfect environment for people to finally get serious about institutional changes. As we make such changes we will have to wrestle prerogatives from our elected officials. We may begin by demanding fully indexed taxes, perhaps a constitutional amendment on government spending, and more protection of private savings from government controls. These and other reforms will all be part of the institutional changes that will allow us to adapt or adjust better to the inflationary and uncertain environment of the first half of the '80s. If such institutional changes do take place, they'll take away many advantages from the politicians who benefit from rising inflation rates. In that changed environment of the late 1980s we can finally get serious about permanent cures for inflation, and perhaps unemployment and stable economic growth as well.

FAVORABLE TRENDS

Eugene Brady. Let me continue some of the things that Larry has discussed and maybe close on an optimistic note. One thing we can say is that Keynesian economics as we've traditionally used it and practiced it over the last twenty years or so is pretty much dead. I agree with Michele Fratianni, that it died in about 1965 because the Keynesian apparatus was unable to cope with very high rates of inflation that were set in motion by President Johnson trying to fight a war in Vietnam and have a "great society" simultaneously. We're reflecting that. The last two reports of the Joint Economic Committee of Congress, endorse supply-side economics. We find that demand manipulation is not very effective. We've been trying to fight inflation, in a sense, by causing recession. In the early '30s we were looking for prosperity just around the corner. For the last couple of years we've been looking for recession just around the corner as though recession will solve the problem. The kind of recession we're going to have this year will have a very low or small impact on the overall rate of inflation. Rather than depress demand to get at inflation we're going to start increasing supply and this means supply-side economics. We will have changes in the regulatory and institutional structure of the economy that will allow for supply-side increases. We're going to have more growth in real production and in productivity. We're going to rely less on restraining demand to control inflation than we are to, in a sense, boost the supply side.

Another area of optimism is our demographic pattern for the 1980s. The baby boom is past the colleges. We're in a non-growth industry. The "babies" are about to be middle-aged people, and fortunately these are the people who do the high proportion of saving in the U.S. economy. Their savings rate was very low last year and has been low so far the first quarter because interest rates have been negative. Regulation Q and negative interest rates don't give much incentive to save. Now that real interest rates are turning positive we're going to see more competition in the financial structure, and we will see high levels of saving. Couple these relatively higher savings rates with supply-side institutional changes, and I think we'll have the money for capital investment available in the 1980s. I think we will have

increases in both real output and real productivity. Another problem we won't have to worry about is absorbing a very rapidly growing labor force. In the decade just past, we had to absorb millions and millions of people each year into the labor force to keep unemployment at a given level. We will not have nearly that kind of problem because labor-force growth is slowing and will be slower in the '80s than in the '70s.

We're going towards a more competitive financial structure. You may remember that about ten or twelve years ago legislation or programs to change the structure of the financial community in the U.S. started out with the Hunt Commission Report. Earlier this month, that legislation was signed by the President and the so-called Financial Reform Act (Depository Institutions Deregulation and Monetary Control Act of 1980) was passed. This phases out Regulation Q. It defines the money supply as M1A and M1B, and sets reserve requirements on all depository institutions that issue checking accounts. Most importantly, it reduces the cost of reserve requirements for member institutions and has started to decrease the flow of people using the federal reserve system, so I think we'll have a better control system by the monetary authority. We'll have more competition in the financial structure. Coupled with these other things I've mentioned this promises a pretty good decade in the 1980s.

As Michele Fratianni said, it's going to be a tough world out there. One of the problems we may have is avoiding trade wars and the sort of thing we had in the early 1930s. Inflation was sixteen years in the making and it's not going to go away overnight. I hope we can bring the rate of inflation down a percent or two a year in the '80s. That may be wishful thinking, but I hope it's practical.

AUTOMOTIVE FUTURE

Jacques Maroni. It's going to be a decade of terrific activity and a decade of enormous and almost unlimited opportunity for those who have the nerve to go out and try things that are different from what we've done in the past.

This is not a dying industry. Thirty-five million automobiles and trucks were sold in the world as a whole last year.

Projections in no way suggest that the world is running out of oil. There are 650-billion barrels of proven reserves of oil and another 1,000-billion yet to be discovered. The world has not been drilled like the U.S., where no one expects to discover enormous pools of oil. The U.S. has already peaked in its production of oil, but the world has not peaked. The world is going to continue to be able to produce substantially more oil than it is currently producing. Production is limited primarily by political factors. It's not a geological problem, it's a political problem.

The time has come, however, to start the transition away from petroleum despite the fact that there is a lot of petroleum left in the world. There is the probability that over the next ten, if not fifteen or twenty, years the Saudi Arabian monarchy, the Kuwait Government, and the United Arab Emirates can be, and will be, destabilized by events that we cannot control at reasonable cost. Given that, I think there will be a major interruption of oil imports that will make the Iranian event, the sixty percent increase in price, look like a joke. In 1979, although the price of oil did increase by sixty percent, there was no substantial reduction in world oil production; in fact, it was almost at an all-time high *[62.4 million barrels per day or 2.2 million barrels per day increase over 1978]*. But there is a terrific risk, probably in twenty years, of an event in the Persian Gulf that would have a worldwide impact. It's urgent, therefore, to start the transition away from petroleum. There are many ways of doing this, and I'll mention them briefly.

First, there's going to be a boom in mass transit—buses, fixed rail systems, etc. Now a boom means mass transit is going to at least

double its market share. It's going to go from three percent to six percent of the total. But the real mass transit system is, and remains, the car, and there isn't any practical way we could change that, even if we all decided this afternoon to do it. The car is going to lose about half its weight. By 1990 cars will range in weight from 1,400 pounds for a two-seater to about 2,600 pounds for a family car. Those automobiles can be made substantially more efficient. Some people say double, some people say triple, some people say quadruple. It's primarily a question of cost. Obviously we can manufacture expensive and limited-purpose vehicles that will go eighty-five miles per gallon. The issue is not whether we make the cars more fuel-efficient—of course, we're going to do that. The real issue is whether those cars will still require imported petroleum that will leave us hanging on the petroleum hook. I submit that we have basically six policy choices that we've got to consider and debate.

First, we can decide that we're going to displace petroleum in stationary applications and reserve it for its premium uses and declare transportation to be one of them.

Second, we can rely on gasohol. We can say that we have a lot of set-aside acres, we have capacity to grow corn from which we can make ethanol. Ethanol can be made not only from grain but from any number of other crops that grow in Indiana and other states. We can increase the number of gasohol stations and the volume they sell.

Third, we can say we're going to make synthetic gasoline and synthetic diesel fuel from any number of things, starting with coal and shale. Synthetic gasoline means you can't distinguish it from the gasoline we use now. You can dump it in an old car and the car will run.

Fourth, we can make neat alcohol. That's 100 percent alcohol, not just necessarily ethanol. It can be butanol, it can be methanol, it can be any number of alcohols.

Fifth, we can go for blends of alcohol with gasoline. We can take methanol and ethanol and blend it with gasoline.

Finally, we can go for dual-fuel vehicles. We can make vehicles that run not only on gasoline but also on methane or propane, both of which can be made from coal; or we can have alcohol injection.

Now all of these options are fluid fuel options, either liquid or gaseous fuel. I did not mention electric vehicles. Electric vehicles have been popularized in the Sunday supplements, but they happen to suffer major infirmities. They have a limited range (probably less than a hundred miles). They have limited performance. The battery pack cannot be recycled more than a certain number of times, so every other year you may have to dump it out (good-bye $1,200) and buy a new one. Not attractive. Now of course we can have a breakthrough, but I don't want to bet on breakthroughs. If we have a breakthrough, we'll have electric cars. Otherwise I think that the only way we're going to get a large number of electric cars in this country is as a result of a new office that's going to supervise gasoline rationing in the United States. Would you believe? That office will eventually require 50,000 employees, and will issue a new currency, which we'll be allowed to trade. Now I hope that eventually all of us will spread the word and explain to people that it would be better to rely on the price mechanism. We can have a tax on motor fuel, we can recycle the tax, and that beats rationing. Nevertheless, that's one of the problems ahead.

My company cannot decide which option is going to be chosen. We cannot decide to make cars that run on alcohol. There is no alcohol on which to run them. The people who would produce the alcohol are not about to make the investment. There are no vehicles that can run on it. We've got a chicken and egg problem. I don't like government intervention, but sooner or later we're all going to understand that the

transition from petroleum to another system, or several other systems, cannot be left to chance. It will become, in my opinion, an item of big political debate within the next ten years.

MIDWESTERN IMPLICATIONS

Morton Marcus. I will go on to the implications of all of this for the Midwest. We have the enormous productive capacity to handle the kinds of industrial changes that are going to take place in this country. The question is, whether or not we're going to have a federal policy that might, at last, be relatively neutral with respect to the distribution of population and the distribution of economic activity. For over fifty years we have had federal policy that has attempted to follow out the manifest destiny of the nation, and that is to bring equality to all regions. Having done that, we now can begin to set new sights for the country. One of those might be federal policy that has some degree of neutrality or at least does not continue the patterns of the past. If we're going to be concerned in the energy area, if we believe that it is possible to bring back the steel industry in the United States, and if we want to conserve energy, then perhaps what we ought to have, and perhaps what we will have, is a reinvestment in the railroads of this country. Certainly we could transport a great deal of our goods by rail. The railroads actually happen to favor this part of the country.

There are some indications that the kinds of problems that the nation faces can be resolved with the kinds of physical plants that we have in this area. We have to have very aggressive state-level policies that would lead to investment by existing firms in the states where they're currently located. We don't need a law that prohibits movement, but an encouragement for existing plants to keep operating in the areas in which they are located because that has certain social benefits and avoids the tremendous dislocations that can occur.

This part of the country is extremely sensitive to downturns in the national economy. If the kind of particularly gloomy picture that Mike Fratianni has painted (and I don't know how he can go home and shave without cutting his throat) were to come true, this part of the country would suffer. But I think there are much more optimistic scenarios that can be painted for the future of this country, and we are poised to take advantage of them because of the physical plant, the trained work force, the transportation facilities that we have here in the Midwest. The 1980s look relatively good because there's a new willingness to take on problems that we face and to find resolution for them.

ADDITIONAL COMMENTS

Schuyler Otteson. I'm rather suprised that none of the panel has stressed this matter of productivity, the subject of today's conference. If you go back about ten years it's absolutely frightening to see what's happening, what has happened to productivity in this country—we're flat, going down. At the same time if you look at what has happened in Japan and some of the other countries against whom we compete, there has been a phenomenal increase in productivity. I just wonder whether we have any views up here on that subject that might suggest our ability to increase our capacity, our output, and our economic welfare for the next ten years.

Jacques Maroni. Let me compare the relative costs of making cars in Japan and making cars in the U.S. There is no question that cars can be manufactured in Japan at the present time for substantially less than they can be manufactured in the U.S.—identical cars. This has been true for the last thirty-five years. In the '50s

and '60s, the U.S. market was insulated from this kind of foreign competition to a very substantial degree. We had very cheap gasoline in the U.S. We sold it, without tax, in the range of twenty-five cents a gallon. Overseas, gasoline was heavily taxed, and, as a result, our type of vehicle was not in production overseas. Very tiny, very fuel-efficient cars were produced overseas for highly taxed gasoline. This was, in effect, a de facto monopoly for large American cars built in America. It has evaporated in the last five years, and all of a sudden this potential problem, which had been threatening all along, is having to be examined for the first time. But Japan has had a lower cost of production for the last thirty-five years.

Michele Fratianni. This i a measurement problem. We measure productivity of labor by taking gross national output divided by man-hours worked, and productivity of capital by dividing output by the total amount of capital equipment used in producing it. Our total output of goods and services is our Gross National Product. You know, a lot of this equipment that we have bought is really pollution abatement equipment, to clean the rivers. That's not productive equipment. How are we to measure the improvement in the quality of life that we trade off as we devote one less dollar for productive equipment and one more dollar to clean Lake Michigan? And that is a little bit of a problem that we face in this country. In the last six or seven years we have devoted substantial energy and resources to pollution abatement equipment that is not really building manufacturing. In the latest studies of productivity by Edward Denison, the foremost authority on productivity, he explains the decline Dean Otteson was alluding to by saying of sixty percent of it, "I don't know what the causes are." He can explain forty percent but not sixty percent and he has a long list that shows the degree of ignorance we still have about why we are lagging behind other nations.

Schuyler Otteson. We all seem to agree that a good careful look at our whole tax pattern and our incentive pattern for investment in this country needs to get very high priority indeed. People who've been doing a lot of work in this area have told me that the incentive to get into capital formation in Germany and in Japan and certain other places is highly positive, while in this country the incentive for savings, the incentive for investments is negative. You get the escalator clause: the more you have, the bigger the chunk that gets taken away from you.

Lawrence Davidson. Along those lines, just one bit of information. If one takes the 1980 fiscal budget for the Federal Government, which is about to lapse in the end of September, and adds to it the planned budget for 1981, which should begin then, as a nation we will pay almost a hundred billion dollars in increased taxes over the level of fiscal year '79. Adding the two years together gives the largest two-year total ever, of course, a thirty percent increase in total taxes generated by the government over what went before. So if taxes affect productivity, we can look for more of the same.

Michele Fratianni. I'm going to come in on the devil's advocate side. I'm very much of a libertarian, but I can't help noticing that in countries like Belgium and the Netherlands, where government takes sixty percent of expenditures to GNP versus the U.S.'s thirty percent, productivity is about three times as high. Since we have countries where government involvement is about twice as big as it is in the U.S., but productivity is higher, obviously there is no one-to-one relationship between government intervention and productivity of the nation. At least there are counter examples.

Jacques Maroni. I wonder whether we don't have a structural problem in the U.S. Whether we're not looking at the fact that some of the basic industries that we've had for the past fifty

years or longer are no longer the ones that are ideal for this geography and this decade. If that's what it is, a transition from one type of infrastructure to another type, then we ought to address it in that manner, not confuse it with something that it is not.

Schuyler Otteson. Would you like to be more specific about that?

Jacques Maroni. The American people will decide over the next twenty years whether they want to manufacture steel and whether they want to manufacture vehicles in the U.S. It is perfectly clear that motor vehicles can be manufactured outside of the U.S. for less. The question is, Is it in the public interest? We're a multinational company. If we were told, "Would you kindly stop making them here and go make them in Brazil and ship them in"—fine. It's a question of public policy. Now I'm not recommending that, and we're not doing that. We are reinvesting in the U.S. because we believe that's the U.S. policy. But I think that sooner or later there will be protection proposed by the UAW to protect the employment of its members against Japanese competition or Brazilian competition or Mexican competition. And if that's what it takes to keep the American industry here, then that's what it will take. But we ought not to be deluded into thinking that it's possible to become cost competitive quickly and without any barriers. As I said earlier, this cost differential has been there for thirty-five years. It's not going to evaporate quickly. In the absence of some political decision, I believe the domestic manufacturers will not be adequately profitable to reinvest at the rate that will keep the industry here.

Schuyler Otteson. I'll make one final observation. Over this last seven or eight years we've been circling the state each fall talking about the future, and we've had uncanny success on everything but one item. We've been wrong almost every year, if not every year, on inflation. And whatever we're saying today, I'm afraid we're going to be wrong again for the year ahead. I just can't believe we're going to get inflation down under double digit for 1980 under any kind of circumstance, and we may not get it under where it is now by very much. That's just my own view, and I want to get it in the record so that I can come back a year from now and tell you I told you so.

The Indiana Economy

INDIANAPOLIS

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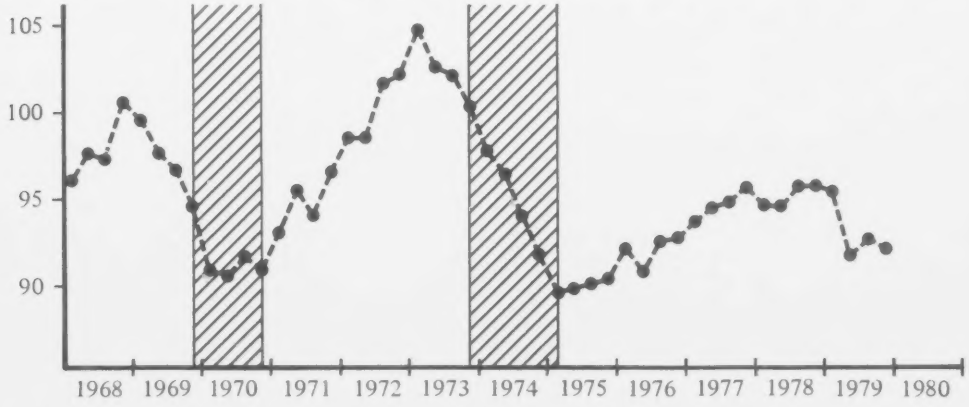
A national recession beginning in the first half of 1980 was signaled last year when the IMEX–Indianapolis Metropolitan Index of Leading Economic Indicators–turned downward in the second quarter of 1979. As shown in Figure 1, the IMEX has turned downward three or four quarters before national recession during the two previous recessions.

What will be this recession's impact on Indianapolis? The cyclical nature of the national economy is based primarily on durable goods (automobiles and parts) and construction. Indianapolis is basically an automotive parts town. Ford and Chrysler will be introducing smaller cars this fall to compete with imports and General Motors' X-bodied models. Indianapolis plants will participate in the production of these new models with the Chrysler Foundry manufacturing the four-cylinder engine block and the Chrysler electrical plant producing the starters, alternators, and voltage regulators for the new K-cars. The Ford plant will make the power pumps and steering columns for the front-wheel-drive Ford Escort and Mercury Lynx.

We in Indianapolis will produce parts for the smaller cars, but will the consumers buy them? Historically, when consumers shift to another car manufacturer it may be six or seven years before they return to the former manufacturer. Such a shift is particularly serious when it is from a U.S. manufacturer to a foreign manufacturer. Also, with rising unemployment and stagnant or declining real disposable income nationally, consumers typically

FIGURE 1

IMEX–Indianapolis Metropolitan Index of Leading Economic Indicators



Shaded areas = national recession

postpone the purchase of durable goods, such as automobiles. Therefore, for this fall a greater choice of smaller U.S. cars is certain; the demand for them, as determined by consumer tastes and real disposable income, is less certain.

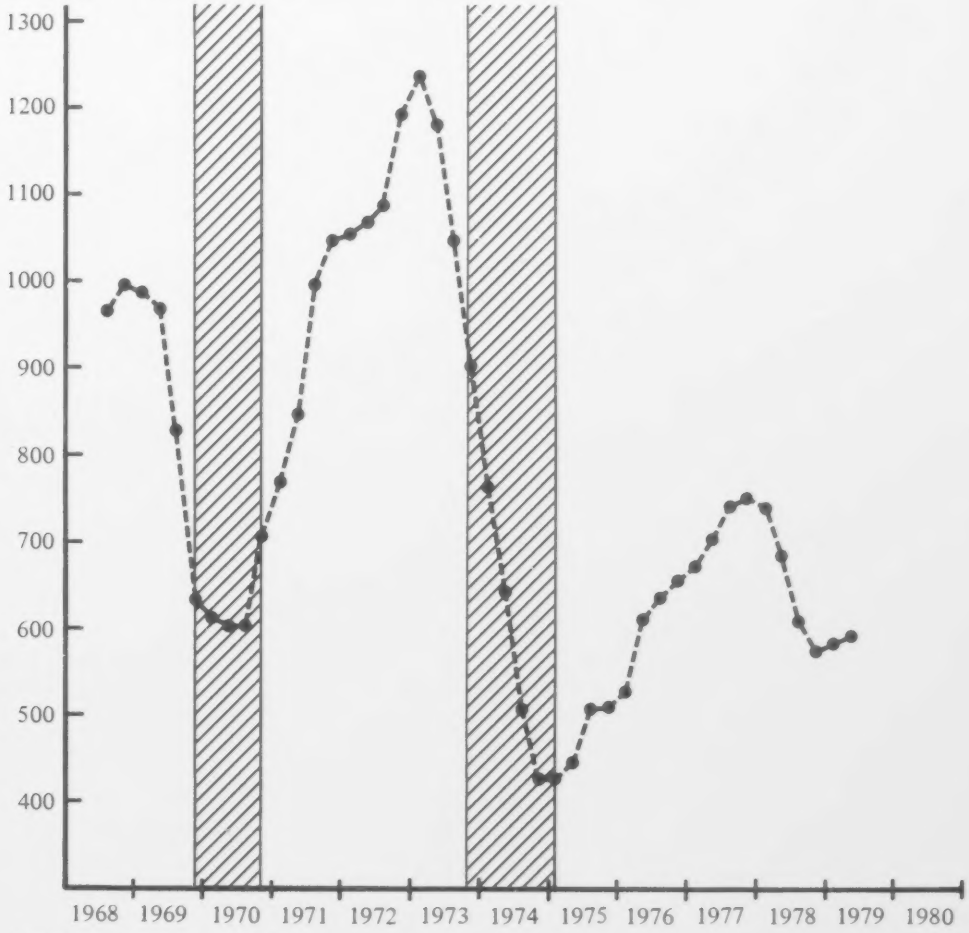
The Chevrolet plant, which produces sheet metal parts for vans and trucks, will be spending heavily this fall on retooling for a new smaller truck to be introduced in September 1981. Some of the unemployed Chevrolet employees have been hired by Detroit Diesel Allison, which is experiencing continuing strength in non-automotive demand for transmissions.

Residential Construction

The other highly cyclical industry is residential construction as shown in Figure 2. What about

FIGURE 2

Housing Permits–Indianapolis Metropolitan Area Centered Four-Quarter Moving Average, Seasonally-Adjusted Data, 1968-1979



Shaded areas = national recession

recovery in housing? Mortgage rates will decline somewhat and innovations in home financing will continue. The Federal Home Loan Bank of Indianapolis in its annual Indianapolis housing vacancy survey in February, 1980, indicated that single-family and multi-family vacant inventories remained at a below normal level. The demographics of housing demand continue to be favorable. However, since real personal income is an important determinant of housing demand, one must be cautious about expecting a significant recovery before 1981. Meanwhile, the slowdown in residential construction and the cost of money capital have combined to reduce private and business demand nationally for telephone sets, thus reducing both employment and production of telephone sets at Western Electric.

As the recession spreads beyond the automobile and residential construction industries, many households and business firms may find themselves in a liquidity squeeze as costs continue to rise and incomes and business receipts do not keep pace. Although firms have controlled their inventories well compared to 1974, there is the risk of a more severe recession than initially forecast because of the weakness in consumer finances. In the automobile-oriented states, workers' incomes have been supported by supplemental unemployment benefits, but some benefit funds are beginning to run out. During 1979, retail sales in the Indianapolis metropolitan area increased about five percent, but after adjusting for inflation in retailing, sales were flat. Therefore, termination of income supplements and rising unemployment could weaken retail sales further.

The Indianapolis metropolitan economy, like the national economy, has been shifting away from a durables-oriented base to a more stable services-oriented one. However, since 1973 as the price of labor has increased less rapidly than capital, labor has been substituted for capital. Therefore, it remains to be seen how a more labor-using economy adjusts in this recession.

Business Construction

Some important changes soon will occur in the downtown Indianapolis skyline. During the fall, structural steel for the 37-story American United Life Building will be erected. The City of Indianapolis has received a $12.8 million grant under the Federal Urban Development Action Grant (UDAG) program for the West Washington Street Revitalization project. The grant involves a cooperative public-private sector undertaking in which for every one dollar of public money there will be five dollars of private money invested. The grant is from the federal government to the local government which then lends the grant money to private developers. The grant requires a recapture mechanism in which the loans are repaid to the City's redevelopment fund over a payback period. Then the City must use the recycled grant money for other community development projects.

The UDAG grant involves four projects including a twelve-story office and retail building, One North Capitol, at the corner of Capitol and Washington. One North Capitol, a joint venture involving P. R. Duke, Melvin Simon and Associates, and the Downtown Merchants Development Corporation, will cost $14.5 million. Three million of that will be a loan from UDAG grant funds. Work will begin June 15th and structural steel will be up by the end of the year.

Another project is the renovation of the Indiana Theatre by the Downtown Merchants Development Corporation with a loan of $1.5 million in UDAG grant funds. The renovation is in addition to the Indiana Repertory Theatre renovation in the Indiana Theatre.

The third project is for the renovation of the H. P. Wasson Building at the corner of Meridian and Washington. The renovation will be done jointly by the Downtown Merchants Development Corporation and Melvin Simon and Associates at a cost of $11 million with a loan of $2.25 million in UDAG grant funds.

The fourth project is a 60,000-square-foot retail and 600-car parking complex east of the Indiana Theatre on the site of the old Claypool Hotel. This project is undertaken jointly by the Downtown Merchants Development Corporation and Melvin Simon and Associates, and includes an elevated walkway linking the retail center with Merchants Plaza and a tunnel connecting the Indiana Theatre, One North Capitol Office Building, and the State Capitol. UDAG approval is being sought for a 300-room hotel as another dimension of this project.

Although exciting investment decisions are being made for downtown revitalization that will affect the Indianapolis economy for many years, the short-term view is for a bowl-shaped recession due to uncertainties surrounding the strength of recovery of the automobile and residential construction industries.

FORT WAYNE

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Any update of the 1980 forecast must include an assessment of the impact–past and future–of the International Harvester strike locally. The strike, involving approximately 8,000 employees, had just started at the time of preparation of the forecast that appeared in the November-December issue of the *IBR*. The strike, longest in the history of the UAW, ultimately lasted almost six months; the local plant resumed operations the fourth week in April.

Utilizing data from a strike against General Electric in 1970, I projected at the start of the IH strike that the area economy–the four county SMSA–would suffer a 12 percent–$2.5 million–loss per month in major department and discount store sales and a $12.5 million loss in total retail sales. Ex post analysis of actual sales data suggests a $2.1 million loss per month in major department and discount stores and a $16 million loss per month in total retail sales. Given that the two methodologies produced similar results, it can be said with relative confidence that the IH strike cost the local economy approximately $115 million in lost retail sales. This is equivalent to a yearly loss of approximately 8 percent, or the total retail sales of one month for the area economy.

The return of International Harvester to production will mitigate the $16 million monthly loss and will introduce a welcome counter-cyclical force into the economy, especially since IH is typically a strong pro-cyclical force. The relevant question now is whether IH's inventory position is sufficiently depleted and/or the current recession will be sufficiently short-lived that IH will not have to reduce employment through the recessionary period. The question has already been answered for Scout production; IH has announced that the production rate is being halved.

The spirit of my original forecast appears still to be intact, although the forecast of the local economy to ". . . bottom out in the third quarter" needs to be pushed back *at least* one quarter. The problem is that the original forecast of stimulative monetary and fiscal policy being applied in sufficient time "to cause the national economy to register positive growth in the third quarter" has not occurred. The policies in place or in vogue now–decreasing monetary growth and balancing the 1981 Federal budget–still must go through a complete reversal. (The 1980 Federal budget deficit has just been increased–expenditures loaded into 1980–so that Congress at least can discuss, without total hypocrisy, balancing the 1981 budget. However, whatever resolve Congress had will wither in the heat of the onrushing recession and upcoming election.)

A peak-to-trough drop in seasonally adjusted payroll employment of 5,000-7,000 was

originally forecast for the Fort Wayne SMSA. Payroll employment peaked in August, 1979 at 186,700 and has declined by 5,000 as of March, 1980. (Persons on strike are counted as employed.) Assuming the employment data is not revised substantially at year-end (which has not been a good assumption the last few years), it appears that payroll employment will decline by *at least* 7,000 (or 3.7 percent) before the trend is reversed. The seasonally adjusted unemployment rate in March was 8.7 percent as compared with 6.2 percent nationally. (In April the national unemployment rate jumped to 7.0 percent; the local unemployment rate for April is not available.)

A severely depressed local (new) housing situation was chronicled in the original forecast; however it was noted that "(this) summer . . . activity should begin to pick up." The depression continues. New single-family and duplex (counted as two) building permits totaled 148 through April as compared with 374 for the same period last year. In fact 149 permits were issued in April, 1979 alone. The data suggest that indeed the housing sector has no way to go but up; unfortunately, local economic conditions will leave the sector severely depressed throughout the remainder of 1980.

In summary, the original forecast noted that ". . . there is no reason for optimism for the Fort Wayne economy in 1980" and "because of its relatively high employment in durable goods manufacturing, the Fort Wayne area will bear a disproportionate share of (the) 'drying-out' (process)." That forecast still stands.

MUNCIE–ANDERSON

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This mid-year reassessment of the 1980 outlook comes at a time when the nation's economy, in the parlance of skydivers, is in a virtual state of free-fall. The elusive and much-prophesied recession has finally arrived in characteristically swift and sharp fashion. The economy's slide appears to have commenced in February and rapidly accelerated during March and April. The preliminary 1.1 percent real growth of GNP attributed to the first quarter masks the rapid deterioration that took place in March. The basic causes of the decline can be associated largely with the weakened financial position of the household—to wit, declining real disposable personel income (DPI)—7.9 percent between March 1979 and March 1980; declining employment, with unemployment skyrocketing from 6.2 to 7 percent between March and April; declining value of nearly all household assets, including homes; and record high debt burdens.

The economic performance of the Anderson, New Castle and Muncie area is highly intertwined and is ultrasensitive to changes in the national economy. When the nation's economy sneezes, this region gets pneumonia. Thus, the 1973-75 recession was far less severe in the Pacific Mountain and Southwest regions than in the industrial Great Lakes area, where its impact was disproportionately heavy. As the 1980 downturn is currently concentrated primarily in the automobile, construction and steel industries, Anderson, New Castle and Muncie, with their emphasis on durable goods production, can expect to bear the brunt of the storm.

The U.S. auto industry is in the throes of its deepest crisis since the Great Depression: thirty-three percent of the UAW workers are on layoff. With Chrysler Corporation teetering precariously close to bankruptcy, and Ford and General Motors harassed by severe financial strain, inflation-plagued American consumers have not only retrenched their spending, but have exhibited a growing preference for fuel-efficient foreign cars. For the first quarter of 1980, domestic car sales were off fifteen

percent from the previous year, but April sales plummeted a precipitous thirty-one percent. The primary and secondary effects of this decline are now impacting on the Anderson, New Castle and Muncie area.

In the *IBR* outlook for 1980, I reported 1,400 workers laid off at Anderson's Delco Remy and Guide plants as of early November and predicted significant additional layoffs before Christmas, accompanied by a continued slump in auto sales with high unemployment persisting through 1980. My forecast was correct, but I failed to perceive the magnitude of the debacle. By January, Anderson's Delco Remy and Guide complex had over 4,000 hourly workers on indefinite layoff. By February, Anderson's unemployment was a record 17.5 percent–highest in the United States for a city of its size. By May 4, employment in each affiliate was down roughly 30 percent and the combined layoffs totaled close to 6,000 workers–a greater number than were furloughed in the 1973-75 recession. As these two industrial heavyweights accounted for roughly 38 percent of the Anderson SMSA employed labor force in early 1979, the economic impact on this east central Indiana area is severe by most standards, but it is certainly mitigated by General Motors Supplementary Unemployment Benefits. SUB, equal to 95 percent of the worker's take-home pay, are available to all but those with very limited seniority. Nevertheless, the uncertainty created by the situation has had ripple effects throughout the area as evidenced by employment declines in construction and retail trade. Large ticket items are not moving well as rumors abound as to when SUB will run out or as to the number of workers who will not be recalled.

Rank-and-file workers are concerned, with reason, that GM may be reducing the scale of their operations in the Anderson area permanently. The firm has recently sold land holdings in the Anderson area and has built four new plants in the South (see *IBR* Nov-Dec, 1979). GM recently announced the decision to build two new plants in Missouri and southeastern Michigan but made no mention of the Anderson complex in these expansion plans. I would not be surprised if approximately 1,500 workers were permanently detached from the Delco plants, though the Guide complex should fare considerably better. Conditions in the Anderson economy will deteriorate further before they get better, but surely the number of workers laid off from these General Motors plants will be much smaller in the months ahead.

New Castle's economy, like Anderson's, is tied heavily to durable goods production, and particularly the motor vehicle industry, with such firms as Chrysler, Perfect Circle and the Dana Corporation. The Chrysler Corporation initiated heavy layoffs much earlier than General Motors, so New Castle has had high unemployment for several months. Unemployment currently measures close to 15 percent in New Castle.

Large numbers of workers in Muncie, New Castle and Anderson live in one of the cities and commute to work in another, so a downturn in, say, Anderson impacts quickly on both New Castle and Muncie. Indeed, seniority provisions in the UAW contract with General Motors provide for shifting workers between the Anderson and Muncie plants.

Muncie's economy is much more diversified than Anderson's. Durable goods production accounts for only 36 percent of Muncie's personal income as opposed to 60 percent for Anderson. Thus, given current economic exigencies, it is not surprising that Muncie's employment and unemployment figures read significantly better than Anderson's. Muncie's seasonally adjusted employed labor force in March 1980 stood at 50,700, representing a 5.4 percent decrease from March 1979. From September 1979 to March 1980, Muncie's labor force declined almost 2 percent. Seasonally adjusted unemployment measured 9.7 percent in March, but that figure should be treated with a jaundiced eye as the picture is muddied by a

23-day strike at Warner Gear, which was not settled until the end of March. However, recent layoffs at Chevrolet Muncie and Warner Gear will keep unemployment near 10 percent when April figures become available. The order spindles of the many small machine tool shops centered in Muncie are not yet rusting from nonuse, but these firms are not hiring, and some have had to make adjustments in their operations due to the International Harvester Strike in Ft. Wayne.

Merchants who vociferously boasted in early March, "If this is a recession may it last forever," are now speaking in more subdued tones. Housing is on the skids—February completions ran 51 percent below the comparable 1979 month. Twenty-three percent fewer deeds were recorded during the first quarter of 1980 than during the comparable quarter of 1979. Deed recordings are running slower than at any time since the early 1960s. In the past, speculation in homes by buyers and builders was rewarding and was promoted as a sure way to achieve price appreciation from an asset, that is, as a sure hedge against inflation. Such speculation currently is being questioned in the market place as expected capital gains become increasingly difficult to realize. Those few homes that are currently being sold are being exchanged on contract at interest rates close to last year's rates.

Muncie, like Anderson, will experience deteriorating economic conditions through much of 1980, and a modest turnaround is not likely until 1981.

RICHMOND

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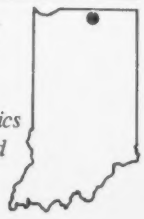
The Richmond area economy is now feeling the effects of the national economic slowdown. Industrial plant layoffs continue unabated, bringing the unemployment rate to 12.7 percent. Most of the layoffs have occurred in electrical machinery and transportation equipment with small losses in food and kindred products, nonelectrical machinery and primary metals industries.

Fifty-three percent of all area incomes come from manufacturing employment, and the local economy is very sensitive to the prevailing conditions of high interest rates and high prices for energy. The building trades and automotive and recreational outlets, for example, are virtually stagnant in the present economic environment. The farm sector, which is beset by high costs of operation and falling crop prices, may expect a 12.5 percent reduction in real income.

In 1978, personal per capita income for the Richmond area was $7,147; although it is now probably over $7,800, the nominal increase has not kept pace with the ravaging effects of inflation.

Despite the present economic slowdown, I expect the Richmond economy to be on the upswing by early next year provided that corrective policy prescriptions are applied at the national level.

SOUTH BEND–ELKHART



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In recent Outlook issues of *Indiana Business Review*, I suggested that the South Bend and Elkhart area economies could expect to experience recessionary conditions whether or not a much publicized downturn materialized in the national economy. There seems little doubt that the two communities are presently in the midst of a recession that began last spring in Elkhart and during the third quarter of 1979 in South Bend.

South Bend. Nineteen seventy-nine got off to a vigorous start in South Bend. Unemployment was low, sales of industrial and commerical energy were high, and the automobile and housing markets were active. As a result, several of the indicators were averaged for 1979 at levels exceeding those of 1978 (and 1978 was one of the better years of the 1970s with respect to economic performance). As 1979 progressed, however, softness that reflected national economic conditions–particularly in autos and housing–began to appear. Table 1 shows that by February 1980 nearly all indicators had declined. Some, like industrial natural gas sales, the unemployment rate, car and truck sales, and new housing permits issued, had deteriorated substantially. Only the nonmanufacturing sector of the labor force was holding its own at levels above those recorded in early 1979. The unemployment rate of 7.9 percent was nearly two percentage points above the national average and represented more than twelve thousand workers idled in the South Bend SMSA.

TABLE 1

SELECTED INDICATORS FOR SOUTH BEND (Seasonally adjusted: 1967 = 100)

Indicator	*Average 1978*	*Average 1979*	*Feb. 1979*	*Feb. 1980*	*Percent change Feb. 1979 - Feb. 1980*
Industrial electricity sales[1]	106.9	125.6	138.7	137.1	– 1.1
Natural gas sales[2]					
Commercial	140.1	143.4	155.9	144.1	– 7.6
Industrial	88.9	98.4	107.0	88.9	–16.9
Employment data[2]					
Nonagricultural	113.5	119.3	120.5	123.9	2.8
Manufacturing	91.9	94.2	94.9	92.1	– 2.9
Nonmanufacturing	127.0	134.7	135.9	143.1	5.3
Unemployment rate[2] (% of work force)	5.8	6.1	4.6	7.9	––
Help wanted index	166.4	135.5	177.1	91.6	–48.3
New passenger car sales[2]	135.7	120.0	127.0	105.1	–17.2
New truck sales[2]	335.8	241.9	281.0	163.9	–41.7
Construction data[3]					
Estimated value of new housing permits	407.3	297.6	275.2	275.2	-0-
Number of new housing permits issued	160.0	111.0	122.0	97.6	–20.0
Average value per new housing permit	265.0	287.7	246.3	307.8	25.0

[1] South Bend
[2] South Bend SMSA (St. Joseph and Marshall Counties)
[3] St. Joseph County excluding the cities of South Bend and Mishawaka

SOURCE: Bureau of Business and Economic Research, Indiana University at South Bend.

TABLE 2

SELECTED INDICATORS FOR THE ELKHART AREA (Seasonally adjusted: 1967 = 100)

Indicator	*Average 1978*	*Average 1979*	*Feb. 1979*	*Feb. 1980*	*Percent change Feb. 1979 - Feb. 1980*
Industrial electricity sales[1]	150.4	162.4	183.5	182.0	- 1.0
Natural gas sales[1]					
Commercial	161.2	165.6	195.6	168.8	-13.7
Industrial	236.7	262.8	296.7	240.1	-19.1
Employment data[2]					
Nonagricultural	177.2	173.8	185.8	176.6	- 5.0
Manufacturing	141.1	134.8	147.7	135.2	- 8.5
Nonmanufacturing	260.0	263.4	273.3	271.8	- 1.0
Unemployment rate[2] (% of work force)	4.9	7.8	4.2	9.2	--
Construction data[3]*					
Estimated value of new housing permits	303.9	250.8	204.8	139.2	-32.0
Number of new housing permits issued	198.3	119.8	78.7	51.2	-34.9
Average value per new housing permit	179.6	220.4	190.3	199.0	4.6

[1] City of Elkhart
[2] Elkhart County
[3] Elkhart County excluding the cities of Elkhart and Goshen
*All construction data has base year 1970 = 100

SOURCE: Bureau of Business and Economic Research, Indiana University at South Bend.

Elkhart. Conditions were worse in Elkhart's economy than in South Bend's primarily because of depressed conditions in the community's recreational vehicle industry. Like South Bend, Elkhart began 1979 on a positive note. Most indicators were up and the unemployment rate reached a low of 4.2 percent in February. By February 1980, however, the unemployment rate more than doubled. Six thousand two hundred persons joined the unemployment ranks in that period. Forty-five percent of those had been employed in the recreational vehicle industry.

It is interesting to note, however, that another industry that is concentrated in the Elkhart area—the mobile home industry—held its own throughout most of 1979. Production and shipments were off minimally at year's end, likely reflecting credit limitations at both consumer and dealer levels. In these days of escalating construction costs, manufactured housing gains in competitive advantage with respect to conventional housing.

Outlook. There is no good reason to forecast near-term improving conditions for the economies of South Bend and Elkhart. As a matter of fact, the fairly close ties of both communities to durable goods manufacturing (Elkhart to a larger degree than South Bend), and a significant portion of this activity in the transportation equipment sector, make it likely that the downturn will be more severe locally than for the economy as a whole.

Several longer-term factors will help buoy the South Bend economy. These include: passage of a state incremental taxing bill vital to the construction of the $35 million Century Mall project; plans to locate a $100 million ethanol plant in South Bend; location in Mishawaka of

a Miles Laboratories plant that will employ several hundred workers; and plans to open a second Indiana Toll Road interchange in the area. Likewise, developments in Elkhart that can be seen as very positive include a $30 million Miles expansion in Elkhart and the opening of a NIBCO valve plant in Middlebury that could ultimately employ 500 persons.

In the short run, however, the continued softening of the two economies should result in unemployment rates that exceed 9 percent in South Bend and 12 percent in Elkhart by year's end with attendant reductions in autos, housing, and retail sales. The depth of the recession, particularly in South Bend, will depend on the severity of the national downturn.

KOKOMO–MARION

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A significant downturn in the auto industry, caused by declining auto sales, rising interest rates, and declining production, is having a severe effect on the economies of Kokomo (Howard County) and Marion (Grant County) in particular, and other neighboring counties in general. Currently 6,412 workers in the auto-related industries, or 36 percent of the auto-related work force in Kokomo and Marion, are on indefinite layoffs. Table 1 shows the breakdown.

In addition to woes caused by the slump in the auto industry, the parent company of Penn-Dixie Steel Corporation, Kokomo's third-largest employer, recently filed for bankruptcy, an event that has had chilling effects on the community. Currently 8.5 percent of Penn-Dixie's 1,300 workers are on indefinite layoffs. If the Penn-Dixie plant is closed indefinitely, it could have a devastating effect on Kokomo's economy.

TABLE 1

Manufacturer	*Indefinite layoffs*	*Percentage of normal work force*
Kokomo		
Chrysler Corporation	3,000	52
Delco Electronics	1,650	19
Marion		
Dana Corporation	588	53
Fisher Body	959	31
General Tire and Rubber Company	215	37

Kokomo's problems do not stop at Chrysler and Penn-Dixie. In May, American Standard Inc., a producer of vitreous china plumbing fixtures since 1893, permanently closed its plant in Kokomo, causing 175 people to lose their jobs. In March, Brada Miller Freight Systems, Inc. moved its Kokomo operation to Alabama, causing 35 persons to lose their jobs. Kokomo's commuter airline service, discontinued in March 1979, has not yet resumed its operation. No one knows when, or if at all, it will resume.

High Unemployment Caused by Massive Auto Layoffs:

Massive auto layoffs and overall slowdown in the North Central region's economy have caused unemployment rates to increase substantially. Table 2, which gives unemployment rates in different counties of the North Central region, shows that, except for Carroll County, unemployment rates in the North Central region far exceed state and national rates. Howard County, which has the highest unemployment rate in the region, is one of the ten worst-affected counties in Indiana.

TABLE 2

Percentage of Unemployed:
March 1980
(Preliminary Data)

Location	*Percent*
U.S.	6.6
Indiana	9.2
Howard County	14.2
Grant County	11.9
Miami County	10.9
Tipton County	10.9
Clinton County	10.1
Carroll County	6.5

SOURCE: Indiana Employment Security Division, Indianapolis.

A Downturn in Housing Sector:

A downturn in the auto industry is having ripple effects on housing and retail sectors of the economy. High mortgage interest rates and a reduction in take-home wages due to layoffs and loss of overtime work are either causing some families to postpone their house purchasing plans or are making them ineligible for bank loans. Despite the drop in mortgage interest rates in recent weeks, from 17.5 percent to 12.75 percent on an 80 percent mortgage loan amount, the number of loan applications at banks in Kokomo has not increased dramatically. The comparative data in Table 3, provided by one of Kokomo's saving and loan associations, spell out the effects of the economic slowdown on demand for mortgage loans.

A significant drop in the number of conventional loans might have been due to the combined effects of higher mortgage interest rates, layoffs, increased number of contract sales, and the uncertain future. An increase in the dollar amount of home improvement loans suggests that many families are postponing purchases of houses by improving present houses.

Another set of statistics provided by Kokomo's Realtors' Association suggests that Kokomo's housing market is going through noticeable changes. Table 4 compares residential housing market data for the Kokomo area in the January-March months of 1979 and 1980. The data imply three things: (1) a 20 percent decline in the number of houses sold during January 20 - March 20, 1980, compared with the comparable period in 1979; (2) a 28 percent increase in the average number of days required to sell a house from a year ago (it now takes an average of four months to sell a house in Kokomo); and (3) a reduction in the ratio of sale price to list price, indicating cutbacks in sale prices. This may also mean that housing prices are not rising rapidly.

TABLE 3

Mortgage Loan Demand

	1979 Jan.-Mar.	*1980 Jan.-Mar.*	*Percent change*
Conventional loans approved			
Number	74	44	−41
Dollar amount **(millions)**	2.6	1.6	−42
Home improvement loans approved			
Number	17	11	−35
Dollar amount **(thousands)**	117,598	221,979	+89

TABLE 4

Residential Housing–Kokomo

	*1979**	*1980†*	*Percent change*
Houses sold–total number	167	139	–20
Sale price to list price percent	96	94	–
Days on market–average number	104	115	+28

*January 24-March 26, 1979
†January 20-March 20, 1980

Effects on Housing and Auto Related Businesses and Retail Sales:

A slump in the housing market is having severe effects on housing-related businesses in Kokomo. For example, a local abstract company's business has dropped 20 percent on account of a lull in the housing market. A high-ranking officer of Kokomo's Home Builders Association recently pointed out that Kokomo may experience a 50 percent drop in housing starts in 1980. Such a drop could jeopardize job security of a substantial proportion of the nearly 1,000 people involved in the housing-related businesses in Kokomo.

A downturn in the economy is having serious effects on the purchase of big ticket items, on the business activities of local freight companies, and on production schedules of suppliers of parts to local industries. For example, local industries that had sold $8.4 million worth of parts to Chrysler Corporation in 1978 are facing difficult days due to lack of demand for their supplies.

Good Economic News:

Although bad news is receiving the most attention, some good things are also happening in the Kokomo-Marion area. Stellite Division of Cabot Corporation, the fourth largest employer in Kokomo, has hired more workers in recent months to keep up with its rising production schedule. Similarly, RCA and Anaconda plants in Marion are maintaining a high production schedule.

Third Century Venture Corporation of Indianapolis announced its plans to build a $10-million ethanol plant in Kokomo. The plant, to be completed sometime this year, will hire 35 to 40 persons. American Energy Systems Ltd. disclosed its intentions to open a grain alcohol plant in Logansport. Bearings Inc., a supplier of bearings to all major industries in Kokomo, made a 3,000 foot addition to its existing branch. Indiana Bell Telephone has plans to spend $2.1 million in expanding and modernizing its system in Howard County in 1980. Ambassador Steel Corporation recently bought the 24-acre complex of the defunct World Color Press in Kokomo.

Gloomy Near-Term Outlook:

Looking through summer and fall 1980, the following economic picture emerges:

Kokomo's recession, which started in the fourth quarter of 1979, could be worse if the auto industry continues to do poorly in the next two to four months. Marion's economy, which also hinges on the auto industry, will be hit hard by a further downturn in the auto industry.

While Chrysler may be the seventeenth-largest manufacturer or the third-largest auto manufacturer in the nation, it still is the second-largest employer in Kokomo. If Chrysler's economic prospects worsen the effects could ravage Kokomo's economy. An added shock would hit Kokomo if Penn-Dixie Steel Corporation is closed indefinitely under the pending reorganization plans. Present difficult conditions will also get worse once the laid-off workers run out of TRA benefits, SUB payments, and other unemployment benefits.

Present high unemployment rates in the North Central counties are likely to go up 2 or 3 percentage points above the preliminary March 1980 figures. In Kokomo and Marion, the rates could rise as high as 20 percent and 16 percent, respectively.

Despite these gloomy near-term predictions this region's economic activity will pick up some steam in the third quarter of 1980. Nonetheless, the economic recovery will be slow and prolonged.

JEFFERSONVILLE NEW ALBANY (Louisville Area)

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After a sluggish performance in the last half of 1979, the Louisville area economy finally began to show signs of a definite downturn in the first quarter of 1980.

The indexes of local business activity compiled by the Louisville Area Chamber of Commerce (Table 1) summarize the situation. Except for the financial area, every index declined between the final quarter of 1979 and the first quarter of 1980.

Here, as in many other localities, the collapsing housing market played a major role in the economic downturn. Although most sectors represented in Table 1 fell off slightly, the construction index plummeted from an average of 156.0 in the fourth quarter of 1979 to 129.3 in the first quarter of 1980. In February and March, real estate sales were about one-third lower than the previous year. Residential construction had already slowed in 1979, with permits running about 35 percent below the 1978 levels in Floyd and Clark Counties. As rapidly rising interest rates in early 1980 choked off access to borrowed funds, speculative building halted and other residential construction declined sharply.

By March 1980, mortgage rates in the metropolitan area had risen to a range of 15 percent to 16 percent, compared with 10 percent to 11 percent one year earlier. Mortgage rates rose again in April, further dampening home buying and home building. However, with the prime interest rate beginning to ease nationwide this spring, mortgage rates will follow, and this should allow the housing market to revive somewhat.

TABLE 1

INDEX OF LOUISVILLE AREA BUSINESS ACTIVITY, MARCH 1970-MARCH 1980

	March 1970	*March 1979*	*Dec. 1979*	*March 1980*	*Quarterly Averages* QI 1979	QIV 1979	QI 1980	*Change in Index* QIV 1979 to QI 1980
Industrial production	116.0	123.8	108.5	114.2	125.5	116.1	114.6	– 1.5
Transportation	136.4	185.9	190.4	183.6	182.0	189.3	183.6	– 5.7
Trade and services	108.3	154.9	150.8	143.9	151.4	150.2	148.3	– 1.9
Construction	117.8	144.0	161.5	118.5	152.4	156.0	129.3	–26.7
Financial	135.8	343.8	377.6	428.6	346.6	373.2	408.1	+34.9
Employment	111.4	137.4	139.1	134.5	137.5	138.4	133.8	– 4.6
Composite Index	**117.5**	**162.8**	**161.4**	**163.3**	**162.9**	**163.0**	**162.9**	**– 0.1**

1967 = 100 (seasonally adjusted)
SOURCE: Research Department, Louisville Area Chamber of Commerce

Nonresidential construction should remain moderately strong this year, particularly on projects benefitting from government funding. School construction continues in Floyd and Clark Counties. In Louisville, various development projects are underway in and around the central business district, including the $135-million Galleria–a many-faceted commercial complex, the $26-million Kentucky Center for the Arts, a new medical-care facility, and some small-scale "adaptive reuse" transformations of handsome nineteenth-century buildings along Main Street. Work is also proceeding on the Jefferson Trade Center and the Westport Distribution Center, an industrial park and distribution complex with a planned capacity of 1.7 million square feet, in southeastern Jefferson County.

Neither lower interest rates nor nonresidential construction projects will do much to buoy the construction sector, however, if there are no workers on the job. Strikes by union carpenters and masons halted construction on many projects at the beginning of May. As of this writing, there is no indication how long these strikes will last.

Manufacturing is the area's second weak sector, but thus far the problems are confined mostly to a few large producers. The poor housing market is reflected in lower production at General Electric, the area's largest employer, and in reduced employment in the woodworking industry; Clark and Floyd Counties employed about 300 fewer woodworkers than a year ago. Despite severe auto production cutbacks elsewhere in the state, the local Ford plants have managed to get along with only temporary layoffs–although these are becoming increasingly frequent. GE has also taken the temporary furlough approach but is expected to lay off 3,700 workers for an indefinite period beginning in June. These cutbacks are already having ripple effects, such as reduced business for local transport firms and more cautious consumer buying. As the recession broadens and deepens nationally, other manufacturers will feel the impact, and additional layoffs are virtually inevitable.

Offsetting some of these declines, the six-month strike at International Harvester finally ended, and the second quarter statistics will reflect the resulting gain in employment, production, and incomes. Many local industries remain strong. To take one example among the major employers, Jeffboat, a Jeffersonville firm, built a record 445 barges in 1979, and production at their huge facility should continue at a high level throughout this year.

Metropolitan-area employment increased by fewer than 2,000 jobs between December 1978 and December 1979, about 12 percent of the typical yearly gain. During the first quarter of 1980, employment fell below the year-earlier level, although adding back in the striking International Harvester employees would have more than offset this apparent decline. Even so, all signs point to a real decline in employment during 1980.

In a notable departure from the usual trend, employment remains stronger in Clark and Floyd County firms than in the Kentucky portion of the metropolitan area. During the twelve months ending December 1979, the two Indiana counties added more than 2,500 jobs, some of which were temporary Census Bureau positions. Although the twelve-month differential narrowed in the first quarter, employment in March 1980 was still 1,600 workers above the year-earlier level.

Unemployment has been rising throughout the metropolitan area. In March the area-wide unemployment rate was 5.9 percent, up from 5.3 percent a year earlier. As usual, the unemployment rate is higher for residents of Clark and Floyd Counties (see Table 2).

As we have moved not only into a new phase of the business cycle, but also into a new decade, it seems appropriate to compare today's economy with that of ten years ago. To that end, Tables 1 and 2 contain data for March 1970. Employment in the Louisville metropolitan area increased about 20 percent over the

TABLE 2

Employment and Unemployment in the Louisville-Jeffersonville-New Albany Area, March 1970-March 1980*

	March 1970	*March 1979*	*Dec. 1979*	*March 1980*
Clark and Floyd Counties				
Total nonfarm employment	46,200	46,100	48,500	47,700
Manufacturing	24,600	12,500	12,000	11,900
Nonmanufacturing	21,600	33,600	36,500	35,800
Residents unemployed	2,200	4,200	4,100	4,700
Unemployment rate	3.9%	6.4%	6.0%	7.0%
Louisville Metropolitan Area†				
Total nonfarm employment	333,500	396,700	403,800	395,400
Manufacturing	123,200	109,200	105,700	104,400
Nonmanufacturing	210,400	287,500	298,100	290,900
Residents unemployed	12,500	21,600	23,600	24,900
Unemployment rate	3.5%	5.3%	5.5%	5.9%

*The employment data refer to establishments located within the area cited; the unemployment data refer to residents of the area cited. None of the data are seasonally adjusted.

†Includes Floyd and Clark Counties in Indiana, and Jefferson, Oldham, and Bullitt Counties in Kentucky.

SOURCES: Indiana Employment Security Division; Kentucky Department for Human Resources.

decade, but the increase in Clark and Floyd Counties was less than 5 percent. The two Indiana counties have had a more dynamic decade than the latter statistic suggests. Ten years ago there were some 15,000 people employed at the munitions plant in Charlestown; within the next two or three years those jobs disappeared and were gradually replaced by more permanent employment opportunities in other sectors, especially in nonmanufacturing. There is one 1970 statistic that we have no chance of matching today: the local unemployment rate ten years ago was a mere 3.5 percent.

The growth in economic activity over the decade is perhaps best recorded by the 50-percentage-point rise in the transportation index, which measures the volume of goods moving into and out of the area. And we can see the roots of our present inflation in the financial index's 300-point increase. Deposits and loans at large commercial banks underlie that index, and its soaring path reflects the expansion of money and credit that has fueled our relentless inflation.

Turning from a look backward to a glance at the future, we have a recession to endure in the months ahead. That means employment will continue to contract and unemployment to rise, probably reaching a local rate of well over 7 percent, seasonally adjusted, later this year. Consumer purchases, which long held recession at bay, will decline, adding to the difficulties facing the automobile and consumer durables industries. Offsetting some of these difficulties, falling interest rates will bolster to some extent the housing market and its related industries. Barring any major federal shifts to expansionary fiscal or monetary policy, the economy is likely to remain in a slump through the remainder of 1980. The depth of the recession is very hard to foresee just now. My present guess is that there will be a considerable dampening of economic activity in the Louisville area, but much of the decline will be concentrated in a few sectors; overall, the local impact will be less severe than the nationwide average.

GARY–HAMMOND EAST CHICAGO (Calumet Area)

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Our 1979 November-December report noted a slight decline in regional manufacturing; auto body fabricating, cold-rolled steel, etc. Based on a well-established cyclical profile this normally heralds an economic downturn in five to six months. That downturn is now upon us, as indicated by the following statistics: The Regional Index of Industrial Activity, which had an average value of 100 in 1976, and which peaked at 110.7 in September 1979, gradually declined in each successive month to reach a value of 100.7 in April 1980. The region lost about 4,200 manufacturing jobs and over 2.3 work hours per week, putting current average weekly hours below 39 for the first time since the last downturn. Manufacturing weekly earnings, in real terms, fell 12.1 percent (6.17 percent in steel) from their levels of a year ago. Metropolitan raw steel tonnage shipped fell, from the peak in March 1979, by over 22 percent by the end of the first quarter of 1980.

The troublesome questions are, of course, the severity, duration and local impact of the slowdown in economic growth. Here we have to take a look at the total picture with all its ramifications. One hears that serious downturns seldom occur in presidential election years. That may be so, yet a few danger signals remain. We applied exponentially-smoothed curves to regional data (some derived from national figures by a weighting formula) with the following results:

Table 1 gives exponentially smoothed growth rates for a number of categories, indicating a significant long-term upward thrust in unemployment, interest rates, prices, etc. These rates can be thought of as underlying rates, which would have existed even in the absence of Vietnam shocks, oil shocks and other nonrecurring disturbances. Although the figures reveal a fundamentally stable regional economy, with a small secular gain in real incomes (computed from wages, not including interest, proprietors and other non-wage incomes) the relatively small net real growth, coupled with a secular rise in the underlying minimal unemployment rate, also indicates some fragility. There is a possibility that the long cycle, sometimes referred to as the Kondratieff (named after a Russian economist), may be gradually inching down thus bringing about a long shallow recession that may linger on in our region for several months, or possibly even years. Minor interruptions in the long downturn may occur towards the end of the

TABLE 1

EXPONENTIALLY WEIGHTED LONG RUN GROWTH RATES

	Local steel tonnage	*Unemployment*	*Prices*	*Bank rates*	*Mortgage rates*	*Retail sales in current $$$*	*Government expenditures as proportion of wage income*	*Work force*	*Wages*
1960-1980, lq.	1.89%	2.47%	5.76%	5.09%	4.76%	8.42%	1.28%	1.99%	6.75%
	(.78)	(.51%)	(1.72%)	(.51%)	(.54%)	(.91%)	(.28%)	(.62%)	(.51%)

TABLE 2

SURVEY OF LOCAL FIRMS

	Manufacturing	*Construction*	*Autos*	*Transportation*	*Retail*	*Utilities*	*Finance and Insurance*
Expectations for second half of 1980 and for 1981							
Moderate or significant growth expected	49% (65%)	48% (34%)	65% (72%)	51% (32%)	54% (66%)	82% (75%)	63% (94%)
No growth or decline	51% (35%)	52% (66%)	35% (28%)	49% (68%)	46% (34%)	18% (25%)	37% (6%)
Current Experience							
Moderate or significant growth	32% (44%)	14% (86%)	28% (67%)	38% (30%)	71% (78%)	85% (65%)	82% (94%)
No growth or decline	68% (56%)	86% (14%)	72% (33%)	62% (70%)	29% (22%)	15% (35%)	18% (6%)

current year or the first quarter of 1981. Additional analyses, not reported here because of their technical nature, tend to confirm the possibility of a long shallow recession followed by a low-growth (or no-growth) recovery.

We must bear in mind that 56.23 percent of the SMSA's wage and salary income is produced in our local durable goods manufacturing plants as opposed to 40.72 percent in the State of Indiana and 20.17 percent in the U.S. Porter County is most dependent on manufacturing with 62.1 percent of its total wage and salaried income deriving from durable goods (53.55 percent for Lake County.) Retail trade provides 9.84 percent of total wage and salaried income, government 8.41 percent, etc. With such a heavy concentration in manufacturing there is less resiliency and greater sensitivity to rising energy costs.

Data for the second half of 1980 and the first half of 1981 from a survey of local firms by IUN business students indicate a more pessimistic outlook. (The figures in parentheses are from our 1979 survey.) The only rise in optimism over 1979 is in construction where a considerable pent-up demand exists and where falling interest rates might bring about a reversal. See Table 2.

In conclusion, we want to note that consumers, who have disregarded downside signals for so long, may now begin to make adjustments that will in turn delay the general upturn, just as the long lag in consumer expenditures held back the downturn.

TERRE HAUTE

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Indiana State University

The recession has reached Terre Haute, and its onset has been more rapid, and more severe, than had been anticipated. Still, in many respects, the local economy retains considerable resiliency.

The six-month period from September 1979 to March 1980 has brought a substantial, and disquieting, increase in the estimated unemployment in the Terre Haute SMSA. Seasonally adjusted, unemployment in the region rose from 6.2 percent to 7.6 percent; without the seasonal adjustement the spurt was dramatic, from 5.2 percent to 8.7 percent. Such rates were not reached until the very depths of the 1975 recession. The unemployment estimates, however, may be misleading. Employment levels have been stable over the past six months, and have risen from an average of 57,300 in 1975 to 60,700 in 1977, to 63,100 in 1978, and to 69,700 by December 1979. In an area with a rather stable population, jobs have increased by some 20 percent within a period of five years. In the past six months no plants have closed, and there has been only one layoff of any size–in February, at CBS records.

Real estate sales and construction exhibit similarly mixed patterns. Ongoing construction projects virtually guaranteed a high level of construction activity for at least the first six months of 1980, and on a year-to-year basis construction employment is up substantially from last year, about double the levels typical of the '70s. Some new construction projects have been announced including, a J. C. Penney Department Store for Honey Creek Square, a 120-apartment retirement village at Saint Mary-of-the-Woods College, and school construction in Sullivan County. However, after a very strong 1979, prospects appear dismal for builders of single-family homes. The resale home market also has changed dramatically, with mortgage rates recently in excess of 15½ percent. "Creativity"–mortgage assumptions, contracts, and the like–is now the password to home financing, but a seller who needs to extract full equity now faces serious problems. Although a Clay County realtor reported business off 75 percent, the record in Vigo County shows sales holding up surprisingly well. The first quarter of 1980 virtually equaled the corresponding period a year ago. A March-to-March comparison, however, does show a drop off of about one-third.

Local merchants quite nicely survived the monetary restraints imposed by the Federal Reserve Board on October 13. The further tightening, and associated credit controls of the ides of March may well prove another matter. New car sales were reported up in January and February; a softening in March deepened in April. Furniture, major appliances, and home improvement items tracked similar patterns. Those who needed financing found it harder to obtain. At the same time a local savings institution reported an upturn in savings deposits, and a local securities dealer noted that large numbers of people who had never seen the inside of a brokerage office had been buying into money market funds. Caution as well as constraints contributed to the consumer pullback.

Agriculture is one sector where the deterioration in outlook has been dramatic and unambiguous. Commodity prices fell with the Russian grain embargo, but costs–interest, fuel, fertilizer–continue to soar. Nationally farm income is expected to drop 25 percent; locally the situation may be worse. Farm income constitutes a small proportion of total income in the SMSA, but local merchants depend on a rather extensive rural trading area, and many local manufacturing activities are linked to agriculture.

To date the deterioration in economic activity within the Terre Haute area has been palpable, and pervasive, but modest. Expectations have deteriorated more seriously. People are worried. They fear that the dislocations and aberrations associated with historically high rates of inflation have created the potential for an economic downturn that could be severe and protracted. The resultant caution has contributed much to the slowdown already experienced.

EVANSVILLE

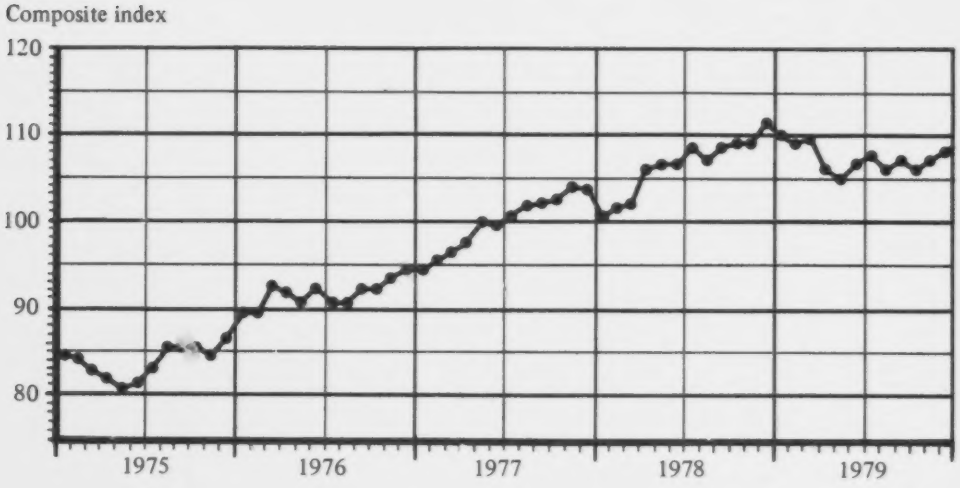
MAURICE TSAI
Professor of Economics
University of Evansville

The Evansville economy did not experience a recession in 1979; however, the overall performance in 1979 can be characterized by stagnation. In terms of the revised Evansville Area Business Index, the growth rate of 1979 only amounted to 0.94 percent. During the year, a strong first quarter was followed by a weak second quarter. There was appreciable growth in the third quarter, but virtually no growth in the fourth quarter. See the accompanying table. The line graph shows the composite index for the area from 1975-1979.

Statistics for the first quarter of 1980 showed an increase in overall activity, but evidences of weakness became obvious in trade and services, finance and employment. By March the national economy as well as the regional economy entered a recession, the depth and length of which is still unknown. Consequently, for the whole year of 1980, the Evansville Area Business Index should show no growth, with a 2 percent decline for the region possible. In the second quarter of 1980 industrial production is expected to decline along with activities in trade and services, transportation, and finance. Employment will certainly

EVANSVILLE AREA BUSINESS INDEX (Revised: 1977 = 100)

	Industrial Production	*Trade & Services*	*Construction*	*Transportation*	*Finance*	*Employment*	**Composite Index**
Annual							
1975	84.00	84.98	67.01	88.12	88.40	88.24	**83.75**
1976	90.49	93.53	83.52	93.45	91.58	94.58	**91.64**
1977	99.90	100.06	99.46	99.93	99.93	100.00	**99.93**
1978	102.45	106.47	123.28	104.51	108.95	106.92	**106.66**
1979	106.30	107.28	114.41	104.85	109.05	108.59	**107.66**
Quarterly (1979)							
First	106.96	108.14	129.17	106.46	109.18	107.98	**109.87**
Second	104.84	106.33	110.52	103.23	107.56	107.13	**106.48**
Third	102.96	107.44	110.42	106.72	109.55	109.30	**107.10**
Fourth	105.70	107.15	107.52	102.98	109.90	108.59	**107.20**
Monthly (1980)							
January	111.68	107.59	101.43	102.81	106.42	108.03	**108.12**
February	113.33	105.43	109.26	103.26	107.08	106.21	**108.53**



decline and the regional unemployment rate will rise from 1979's 5.4 percent to about 7 percent.

High mortgage rates had dampened housing construction by 60 percent from 1978 to the fourth quarter of 1979. The housing depression will prevail in 1980. Amid this gloomy picture, business construction activities will play an important sustaining role. Business construction has been active in 1978 and 1979 and probably will be so in 1980. Business construction permit value in 1979 was almost $43 million, slightly lower than 1978's $50 million. In February 1980 a huge $9 million permit value was added, the largest monthly value in the decade. The Eastland Mall is now being constructed. The $15 million Citizens National Bank Building broke ground in March and will be followed by other buildings of the Riverview Commerce Center. Thus, business construction in 1980 will be almost as active as in 1979, and may surpass 1979.

The 1980 recession could be as bad as the 1974-75 recession in terms of length and severity. But its impact on the Evansville-area economy will be less severe because of strong business construction and the absence of automobile manufacturing here.

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Division of Research
School of Business / Indiana University

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INDIANA BUSINESS REVIEW

VOLUME 55

AUGUST 1980

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Indiana Business Review (U.S.P.S. Pub. No. 261780) is published bimonthly, in February, April, June, August, October and December, by the Division of Research, School of Business, Indiana University, Bloomington and Indianapolis: Schuyler F. Otteson, Dean; H. D. David, Administrative Director. The Division of Research is a member of the Association for University Business and Economic Research (AUBER).

Address manuscripts (two double-spaced copies) to Morton J. Marcus, Division of Research, School of Business, 625 N. Jordan, Bloomington, IN 47405. *Indiana Business Review* is not responsible for opinions expressed by contributors.

Second class postage is paid at Bloomington, IN 47405. Subscriptions are available to Indiana residents without charge.

In this issue ▪ ▪ ▪

The political season is open. Candidates are spending their advertising dollars to merchandise themselves and the concepts they purport to represent. Political action committees are soliciting contributions for distribution to candidates with the "appropriate" views. Business leaders are encouraged to get into the fray so that their voices may be heard. Kathy Smith provides a sample of the Indiana business leader's political activity level. If the past actions of the business community are a guide, business men and women will not play a major direct role in Campaign '80.

Energy continues to be a topic of sustained interest. Larry Davis offers a review of the basic energy source data to remind us of the resources we use and how our use has burgeoned in the past decades.

One consequence of the rise in petroleum prices seems to have been a decline in the number of gasoline service stations. Paul Feldhake identifies the Indiana counties that saw the greatest changes as filling stations were converted to other uses.

MJM

Political Activity of Indiana Businessmen

KATHY B. SMITH

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John Locke advocated that a society separate its economic from its political affairs. Although the political system should establish a healthy environment for business operations, it decidedly should not determine the behavior of the economic sector. Today the relationship between business and government is at times a closer and, alternately, a more hostile one than Locke envisioned. While the true nature of this relationship is often symbiotic, business and government have each viewed the other as an adversary who will usurp power or freedom if not diligently monitored. In part, this attitude begat the political actions to limit corporate political activity.

By Indiana statute, federal law (18 U.S. Criminal Code 10 (1951)), and the Campaign Finance Act of 1974, the role of corporations in politics is severely limited. But individual citizens who are also businessmen can still operate relatively freely in the political world, especially at state and local levels.

As disenchantment with government has increased, there is a need to look more closely at the involvement of community leaders in the political sector. One potential group of these leaders can be found among state business executives. This study focuses upon the political behavior of state economic leaders by attempting to answer the following three questions. First, are there significant differences between those businessmen who choose to become politically active and those who do not? Second, do the politically active businessmen represent all sectors of the business community? Third, *why* do businessmen choose to become politically involved or, conversely, *why* do they choose to be relatively inactive?

QUESTIONNAIRE

In order to answer those questions, a questionnaire was mailed to 500 Indiana businessmen who owned or managed companies that were listed in the *Indiana Industrial Directory*, a publication of the Indiana State Chamber of Commerce. One hundred seven fully-completed questionnaires were returned and gave representative results from various sizes of firms, statewide locations and both manufacturing and nonmanufacturing enterprises.[2]

[1] Smith, Kathy B. Ph.D., Purdue University, December, 1977. *A State Economic Elite: The Political Activity of Indiana Businessmen.* Major Professor: Myron Q. Hale.

[2] Although this survey was conducted in 1975-76, the author believes that the results are still applicable, because social and political attitudes tend to change slowly.

The six-page questionnaire was primarily composed of closed-ended questions, but two open-ended questions provided an opportunity for respondents to discuss the issues in their own words. The questionnaire was designed with three sections: 1) attitudes toward the American political system, 2) level and type of political activity engaged in by the respondents at local, state and federal levels and, 3) personal demographic characteristics.

The questionnaire was accompanied by a cover letter explaining the intent of the study, an assurance of anonymity to increase the rate of return, and a return envelope, already addressed. Many of the respondents accepted an offer to receive a personal copy of the survey results.

Through the use of one-way analysis of variance, discriminant analysis, cross-tabulations, and content analysis the following results were obtained.

RESULTS

Demographic Characteristics

A first step in reporting the findings is to describe the demographic characteristics of the respondents. Such description will provide both a check against generalization to all businessmen and a cursory glimpse at the characteristics of owners and managers of some Indiana businesses.

Most of the respondents (97.2%) were males over 51 years of age who had attended college. Over a third had annual incomes over $50,000 (since this was the highest category listed, the number of individuals with incomes far above this amount is unknown), and no one earned less than $10,000. Almost half (44.9%) came from families where the father had also been a self-employed or upper managerial businessman.

Although respondents lived in communities of all sizes, almost all (95.3%) had lived in their communities for more than three years (the longest time period given in the questionnaire). Most (80.4%) had been with their present firm more than ten years and had rarely moved from one city to another during their working careers. In short, these respondents exhibited a very low level of mobility both between businesses and between communities.

Most of the respondents were in a number of clubs (mean 3.7). Business/professional groups were the type most frequently mentioned, followed by fraternal/social and civic groups. No single club was predominant among the business groups mentioned. In the fraternal/social category the Elks Club was very popular, while Kiwanis was mentioned most frequently in the civic category.

The religious make-up of the respondents reflected that of the state. Most were Protestants (71%), followed by Catholics (20.6%) and Jews (1.9%). Well over half of the respondents described their church attendance as frequent.

Politically, most respondents were Republicans (59.8%), with independents (20.6%) being more common than Democrats (15%). On a scale of conservative-liberal leanings the most frequent answer was "somewhat conservative" followed by "center" and "very conservative." "Somewhat liberal" and especially "very liberal" were not very popular stances among this group of businessmen.

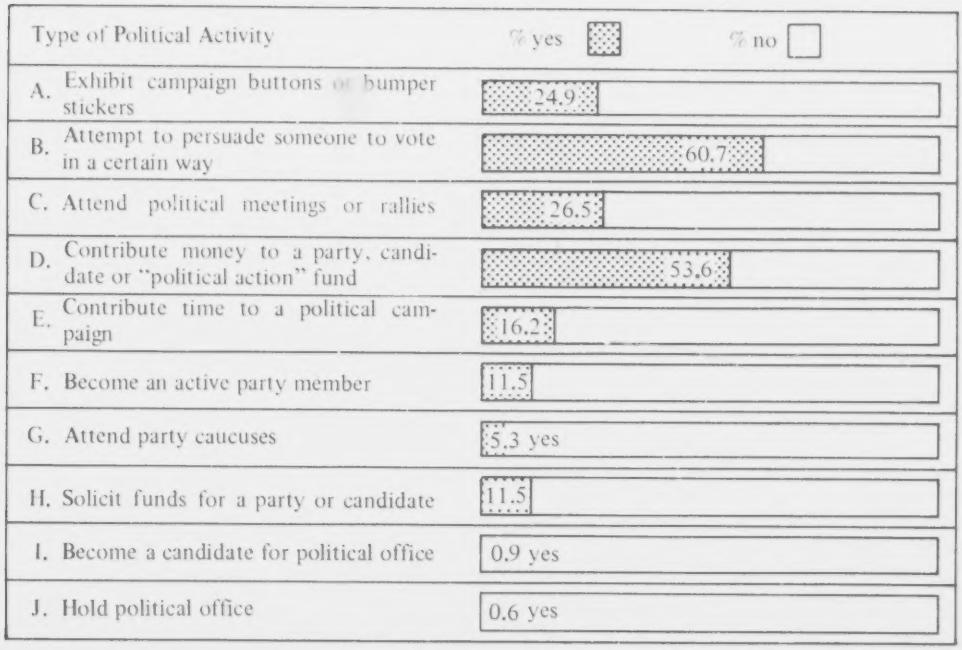
Types of Political Activity

The second section of findings deals with the types of political activity in which these businessmen engaged. When asked to check which political activities they had done in the previous five years, only two activities, "attempt to persuade someone to vote in a certain way" and "contribute money to a party, candidate or a business 'political action' fund" were checked by over fifty percent of the respondents (see Figure 1.)

Except at the highest level of political activity, the type of election (federal, state or

FIGURE 1

Average Level of Political Activity in Local, State and Federal Elections


Type of Political Activity
% yes
% no
A. Exhibit campaign buttons or bumper stickers
24.9
B. Attempt to persuade someone to vote in a certain way
60.7
C. Attend political meetings or rallies
26.5
D. Contribute money to a party, candidate or "political action" fund
53.6
E. Contribute time to a political campaign
16.2
F. Become an active party member
11.5
G. Attend party caucuses
5.3 yes
H. Solicit funds for a party or candidate
11.5
I. Become a candidate for political office
0.9 yes
J. Hold political office
0.6 yes

(Numbers shown are percent responding yes.)

local) did not usually make any appreciable difference in the performance of any activity. Becoming a candidate and holding a political office were only done at the local level. Local elections were also more often the stimulus for attending political meetings or rallies than were state and federal elections.

TABLE 1

Interest in Politics

Level of interest	*Frequency*	*Percentage*
A great deal	22	(20.6%)
A fair amount	66	(61.7%)
Only a little	14	(13.1%)
No interest at all	5	(4.7%)

The question, "Generally speaking, how much interest would you say you have in politics?" most frequently received a moderately positive answer of "A fair amount." Similarly, when the two positive claims were compared with the two negative choices there was a marked predominance of responses on the side of having some interest in politics (see Table 1).

When asked how often they voted in local, state, and federal elections, the most popular response was "always." A remarkably high percentage of respondents answered that they always voted in local elections (87.9%), which, considering the low turnout of the general electorate in local elections, could help make businessmen politically influential in their home communities.

Although most respondents indicated that they were interested in politics and voted regularly, they did not spend much time on political affairs. Over sixty percent of the respondents said that they spent no time on politics each week. The lack of a desire or ability to give time to political matters is a recurring theme that also dominated responses to the open-ended questions.

Many of the businessmen in this study try to persuade people to vote a certain way and contribute money to political activities; have a fair amount of interest in politics; sometimes get the desired results from their political action and vote regularly, but almost never spend time on political affairs. These businessmen are highly active politically when compared to the levels of political activity of the general electorate.[3]

Differences Among Respondents

A third set of findings deals with the differences among businessmen who rank as high, medium and low in level of political activity. There was a significant difference ($F=2.293$ with 106 degrees of freedom, F probability = .037) on the question of the future facing the respondent's family. The politically active businessmen were the most dissatisfied with the future. Those respondents who were the most satisfied were also the least politically involved.

There were also some significant differences in the personal characteristics between the participation groups. As expected those who were most interested in politics were significantly more active politically than those respondents who were not interested in politics ($x^2=23.188$ with 9 degrees of freedom, significance = .005). Additionally, respondents who believed that their political activity produced the desired results (political efficacy) were significantly more likely to be politically active. This supports the theory that people who believe they can influence their government are much more likely to participate in politics. Political activity becomes, for them, a rational act.

Finally, party identification differed significantly between the participation groups ($x^2=27.763$ with 9 degrees of freedom, significance = .001). The two lowest political participation groups contained the largest proportion of members who were Democrats. Considering the Republican voting strength in many parts of the state, one explanation for this difference might be a reduced sense of political efficacy among the Democrats. If a Democrat believes that there is little chance of electing his party's choice, there may be a tendency to withdraw from political activity.

But as important as their significant differences are, there are variables which did not vary with the level of participation. For example, the data do not indicate that businessmen who are active in politics are older, wealthier, more conservative or connected to any certain size or type of business. Instead, the data suggest that although there are some significant differences, generally the politically active and inactive businessmen are both represented by a wide variety of personal traits. *No characterization of politically active or inactive businessmen can be drawn from this socioeconomic data with the possible exception of their differing political party preferences.*

Personal Views of Political Involvement

The fourth, and final group of findings dealt with the businessmen's personal views of political involvement as revealed through their

[3]Surveys of the general population have consistently concluded that most types of political participation are engaged in by only a small percentage of Americans. For example, in their book *Participation in America* (New York: Harper and Row, 1972) Sidney Verba and Norman Nye found from a sample of 3,095 people that only 28% had attempted to influence someone's vote choice (compared to my study's 60.7% in Figure 1) and only 13% of the general public had contributed money to a party or campaign (compared to my study's 53.6%). (Verba and Nye, p. 31.)

answers to open-ended questions. The first such question asked, "From your perspective as a businessman, what are some of the advantages and/or disadvantages of participation in political affairs?" Five advantages appeared most often among the responses. Heading the list was that through participation cherished values could be preserved. For example, one man wrote, "It's the only way to protect and preserve the free enterprise system and the traditional American values."

Becoming informed about public affairs was the second advantage seen in political participation. One businessman hoped "to learn spending patterns and what new projects are coming up in my community."

The third advantage was that participation provided an opportunity to influence decisions and government regulations.

Personal nonmaterial benefits (self-esteem, ego building and prestige) accounted for a fourth advantage. "Achieving personal satisfaction in one's accomplishments" was an example of this type of response.

The fifth consistently given advantage to participating was civic duty. For example, the response that "in a democracy such as ours participation is not only advantageous but necessary." All these advantages have in common their basically nonmaterial or ideological nature.

Moving to the disadvantages of political participation, we see a very different group of responses. Although four types of responses were given, the first two types were far more frequently discussed. The primary disadvantage listed was the time-consuming nature of political activity. The expressed need for time with their businesses and families precluded active involvement in politics.

The second most frequently cited disadvantage was that political participation would hurt business. One businessman expressed it this way, "Becoming too visible results in increased government attention and bureaucratic hassling."

The third disadvantage was that there was a lack of results produced by political activity. Frustration and the "small returns for the energy expended" were examples of this negative feeling toward political actions.

Finally, the fourth disadvantage was that to some businessmen the nature of politics made political participation unattractive. A company president said that "The general dishonesty of our political machinery" caused his lack of interest in political participation.

The first open-ended question dealt with the businessmen's general feelings toward political activity. The second focused on their personal reasons for being politically active or inactive. As we shall see, the respondents maintained a high degree of consistency between their general and specific answers.

The second question asked the respondent, "Please explain in your own words, why you do or do not participate in politics." Eighty-three percent of the responses were reasons for *not* participating while only twelve responses gave reasons *for* participating in politics. These responses were grouped into four categories.

First, the most frequent responses explained that the demands of business, particularly time demands, consumed all of a businessman's energy leaving none for political activity. Typical answers in this category included, "At the present time, I have devoted all my time to the business" and "I'm fully occupied with my business." A recurring assumption within this category was that it takes time to be politically effective. Since these respondents did not feel that they had the time to devote, they did not participate. Two examples of this approach were: "The individual involved casually or part-time in politics can accomplish very little. Therefore I have not participated," and "A small amount of work is no good at all." The need to be effective and to achieve results—both so necessary for success in business—proved to be obstacles in the path of political involvement.

The nature of politics and government was the second most frequent reason given for not participating in politics. A few of the more interesting responses included: "Too much a back-room operation with greater participation by attorneys who have never been successful in practice," or "If a person has any inclination to be corrupt, he will eventually get into politics," or "Politics and political activity in general is regressive and non-productive activity yielding no positive enrichment in life." The list of such comments about politics could continue, but obviously the point is that many businessmen are not politically active because they dislike politics and politicians.

Third, businessmen cited the negative effect their political activity could have on their businesses. Loss of customers and alienation of local political officials were two of these negative effects.

Fourth, for those few respondents who gave reasons for participating, duty was the most frequent explanation. According to one businessman, "It's a citizen's duty and responsibility to participate; the only way open to influence government directions and decisions."

In short, the majority of respondents gave reasons for *not* participating in politics. Furthermore, most of their reasons for abstaining were tied to socioeconomic characteristics. Those respondents listing reasons *for* participating, however, generally referred to ideological considerations such as democracy or civic duty.

CONCLUSIONS

The data did not reveal a different type of businessman who could be predicted to be politically active. Although there were some differences between low and high participators, there were many more similarities. Neither business size, type nor geographic location proved to be useful in predicting the political involvement of the companies' top executives. Politically active businessmen do seem to be representative of the wide diversity found within the business community.

Second, on an individual level, it was apparent from the responses that many of the businessmen felt a conflict between what they were doing politically and what they felt they should have been doing. Most Americans experience this conflict between the socialized belief in the requirements of good citizenship and the realities of their political behavior. But for these businessmen there was an interesting twist: the conflict centered on the discrepancies between economic interests and ideological beliefs. Some felt that political activity was important for any good American citizen, but that it would seriously endanger their economic interests. Thus, while their beliefs pulled them toward active participation, the perceived threat to their economic interests repelled them.

Third, our data indicate that Indiana businessmen *are* more politically active than the general population, although they do not perceive themselves as active. This may represent the fact that they are leaders in their chosen economic fields who associate activity with effectiveness. Their conception of an "active" political role may be more demanding than that of the general population.

Fourth, to the responding businessmen, certain types of participation appear more desirable than other equally commonplace activities. Realizing the many costs inherent in participation, most respondents opted for those political activities that might minimize that cost through reduced visibility. Few respondents seemed willing to risk public exposure of their political activity through the exhibition of campaign buttons, bumper stickers, yard signs or attendance at political meetings. Since most of the businessmen studied perceived the economic consequences of political participa-

tion to outweigh the benefits, it would be rational for them to maintain a low level of intensity.

Sixth, regardless of their current impact on state governmental decisions (many respondents believe there was little impact), Indiana's businessmen remain an untapped potential. Their intensity when aroused and combined with their resources (both personal and organizational) and available skills, would cause their impact on public policy to be much greater than it is today.

Changing Sources of U.S. Energy Consumption

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Energy consumption is associated with many, if not most, of the major problems facing America today. This article offers an introductory overview of the sources of energy currently available to the United States and of the changing composition of total energy consumption from the end of World War II to the present. The materials presented below deal with physical units measured in the common denominator of energy–BTUs (British Thermal Units). Prices and countries of origin are not considered.

The five major sources of energy consumption are petroleum, natural gas, coal, hydropower and geothermal, and nuclear power. Petroleum, which supplied about half of all final consumption in 1978, ranks first among these sources. Natural gas ranks second, followed by coal, hydropower and geothermal, and nuclear power in that order.

AGGREGATE TRENDS

Figure 1 shows that during the last three decades total gross energy consumption in this country has more than doubled. Consumption increased from 33,994 trillion BTUs in 1947 to 78,014 trillion BTUs in 1978.

FIGURE 1
Total U.S. Energy Consumption
by Primary Energy Type, 1948-1978*

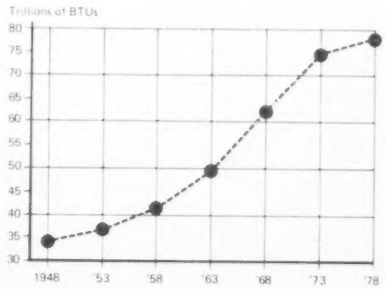


Figure 2 indicates that while the proportion of coal used dropped from 48 percent to 18 percent from 1947 through 1978, the share of both natural gas and petroleum increased significantly. Consumption of natural gas grew from 13.7 percent in 1947 to 33.1 percent in 1971 and was at 25.4 percent in 1978. Consumption of petroleum went from 34.4 percent to 48.6 percent in 1977 and then to 48.4

*SOURCE: William L. Fisher, *Energy Perspectives 2* (Washington: USGPO, 1976), p. 63; Monthly Energy Review, (NII SO B1C1 127-012) National Energy Information Center, U.S. Dept. of Energy (Energy Information Administration, USGPO, Dec. 1977), p. 46; and *Quarterly Report*: Energy Information, Vol. 4 (78) U.S. Department of Energy (Energy Information Administration Washington D.C., p. 6).

FIGURE 2

Percentage of Total U.S. Energy Consumption for Coal, Natural Gas, and Petroleum, 1947-1978

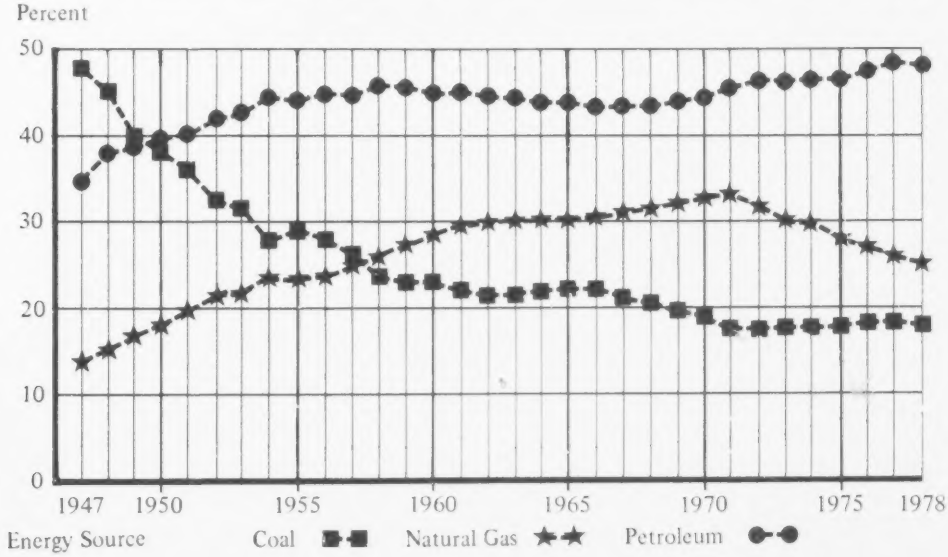
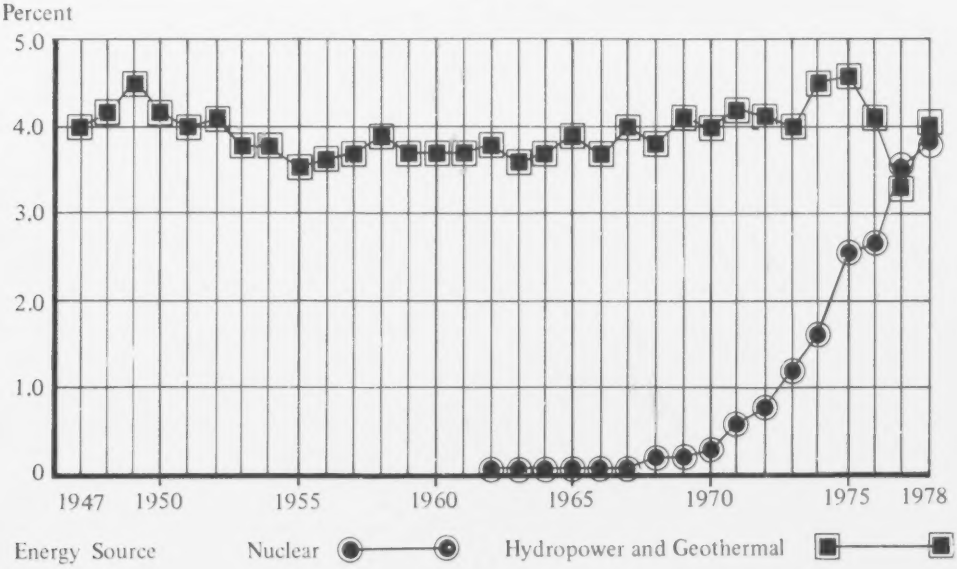


FIGURE 3

Percentage of Total U.S. Energy Consumption
for Hydropower and Geothermal and Nuclear, 1947-1978



percent in 1978. Recently coal has begun again to substitute for natural gas or petroleum. Figure 2 shows that in 1972 coal reached its lowest percentage of energy supplied, 17.3 percent. It then rose continuously to 18.5 percent, dropping slightly in 1978 to 18.1 percent.

During the seventies the U.S. has moved toward greater reliance on nuclear power. Figure 3 shows that in 1970 nuclear power supplied only 0.3 percent of energy consumption, while in 1978 it represented 3.8 percent of total consumption. Figure 3 also shows that for the last 30 years the proportion of energy supplied through geothermal and hydropower has remained very close to 4.0 percent.

DECADES OF GROWTH: COMPARISON AND CONTRAST

Annual Growth Rates

Table 1 shows average annual growth rates for each source of power since 1950. Nuclear power clearly has the highest growth rate. The shift throughout the sixties toward nuclear power pushed growth rates to 50 percent during that decade. Natural gas usage also grew throughout the fifties and sixties but showed a significant reversal in the seventies. Petroleum, with an average annual rate of 3.85 percent, has shown continuous positive growth rates since 1950. The OPEC oil embargo slowed the growth rate of petroleum in the early to mid-seventies as shown by an average annual rate for 1970-75 of 2.2 percent; however, petroleum usage rates in the second half of the seventies shifted back to a 4.9 percent average annual growth rate for 1975-78.

Recently coal has started to grow as a result of the slowdown of natural gas usage. An average annual growth of 3.5 percent since 1975 shows a change from the early seventies, when the average annual growth was 0.3 percent.

Proportion of Total Consumption

Since 1950 petroleum has represented the largest proportion of energy supply. During the sixties petroleum supplied an average of 44.1 percent of all energy consumed in the U.S.; the highest proportion occurred in 1961 with 45.2 percent, and the lowest in 1966 with 43.2 percent. During the seventies average proportion increased to 46.4 percent, with 1977 showing the highest proportion, 48.6 percent, and 1970 the lowest, 44.0 percent.

Natural gas usage significantly increased from 1947 to the end of the fifties. Its proportion of total consumption more than doubled during those years, from 13.7 percent in 1947 to 27.8 percent in 1959. From 1960 to 1971 the proportion of natural gas showed continuous growth, rising from 28.5 percent in 1960 to a high of 33.1 percent in 1971. Since 1971 the proportion of natural gas has slipped each year until it reached a 1978 level of 25.4 percent. This decline represents a significant shift away from natural gas toward petroleum and nuclear power. The rate of decline was 1.9 percent on an average annual basis until 1975, then slowed to 0.2 percent to the present.

As noted earlier, the proportion of coal used dropped from a high of 47.9 percent in 1947 to a low of 17.3 percent in 1972. By the mid-seventies the proportion of coal supplied as total U.S. energy consumption was 18.1 percent. In both 1976 and 1977 coal supplied 18.5 percent. The proportion fell again to 18.1 percent in 1978.

Hydropower and geothermal represented 4.0 percent of total U.S. energy consumption in 1947 and in 1978. The low for the thirty-two years studied was 3.3 percent in 1977.

On the average for the seventies, nuclear power supplied 1.9 percent of U.S. energy consumption. Nuclear power's lowest proportion was 0.3 percent in 1970. The trend toward use of nuclear power has meant a steadily

TABLE 1

Average Annual Growth Rates*

Years	*Coal*	*Natural Gas*	*Petroleum*	*Hydropower and Geothermal*	*Nuclear Power*
1950 ⇨ 1955	−1.8	8.6	5.4	−1.0	–
1955 ⇨ 1960	−2.4	6.6	2.8	3.4	–
1960 ⇨ 1965	3.3	4.9	2.9	1.4	57.3
1965 ⇨ 1970	1.3	6.5	4.9	5.4	44.4
1970 ⇨ 1975	0.3	−1.9	2.2	4.0	52.3
1975 ⇨ 1978	3.5	−0.2	4.9	0.8	17.9
1950-60	−2.1	7.6	4.1	1.2	–
1960-70	2.3	5.7	3.9	3.4	50.9
1970-78	1.4	−1.3	3.2	2.8	39.4

*Trillions of BTUs

increasing percentage of use, so that by 1978 nuclear power accounted for 3.8 percent of total U.S. energy consumption.

LOOKING AHEAD

Nuclear power will supply a growing proportion of total gross energy consumption unless environmental problems predominate in the future. The trends indicate a falling proportion for natural gas, which will give way to petroleum and coal. Unless dramatic changes take place in the next few years, hydropower and geothermal will maintain their proportion.

Finding, and properly using, energy supply sources sufficient to meet growing demands will become more difficult, but the primary trends in these sources will reflect current trends.

Where Gasoline Pumps and Service Bays Once Stood

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Insurance companies, bicycle shops, banks, doughnut shops and a host of other enterprises now occupy those choice corner locations where gasoline pumps and service bays once stood. In the past few years, Hoosier motorists have seen many a gas station converted to other uses or left vacant, windows boarded over and pumps removed. During the five years between the Census of Retail Trade taken in 1972 and the Census of Retail Trade for 1977, data from which was recently released, Indiana had a net loss of 1,368 gasoline service stations.* This 22 percent decline in our state was equal to the national rate of decline in service stations.

*Further information on various aspects of Retail Sales for the State of Indiana as well as for its SMSAs, counties and selected cities can be found in the *1977 Census of Retail Trade, Geographic Area Series for Indiana.* This report is available at the State Data Center, the Affiliate Data Centers and the Federal Depository Libraries.

Number of Gasoline Service Stations in Indiana Counties, 1972 and 1977

County	Number of Stations 1972	1977	Change 1972 to 1977
Adams	33	28	– 5
Allen	267	216	– 51
Bartholomew	78	58	– 20
Benton	26	21	– 5
Blackford	28	19	– 9
Boone	50	35	– 15
Brown	9	10	+ 1
Carroll	22	16	– 6
Cass	62	43	– 19
Clark	91	90	– 1
Clay	38	25	– 13
Clinton	35	35	0
Crawford	13	12	– 1
Daviess	45	33	– 12
Dearborn	34	24	– 10
Decatur	42	30	– 12
Dekalb	45	34	– 11
Delaware	148	95	– 53
Dubois	44	36	– 8
Elkhart	142	116	– 26
Fayette	29	20	– 9
Floyd	72	46	– 26
Fountain	38	33	– 5
Franklin	17	15	– 2
Fulton	34	25	– 9
Gibson	47	43	– 4
Grant	101	67	– 34
Greene	48	39	– 9
Hamilton	71	49	– 22
Hancock	49	44	– 5
Harrison	32	22	– 10
Hendricks	62	48	– 14
Henry	73	52	– 21
Howard	94	71	– 23
Huntington	64	43	– 21
Jackson	50	46	– 4
Jasper	35	41	+ 6
Jay	35	32	– 3
Jefferson	33	32	– 1
Jennings	22	17	– 5
Johnson	76	70	– 6
Knox	71	51	– 20
Kosciusko	81	66	– 15
Lagrange	25	23	– 2
Lake	482	388	– 94
LaPorte	112	104	– 8
Lawrence	47	48	+ 1
Madison	176	122	– 54
Marion	812	611	–201
Marshall	59	43	– 16
Martin	23	12	– 11
Miami	47	39	– 8
Monroe	85	74	– 11
Montgomery	62	45	– 17
Morgan	46	40	– 6
Newton	29	22	– 7
Noble	46	36	– 10
Ohio	5	2	– 3
Orange	27	17	– 10
Owen	23	19	– 4
Parke	22	20	– 2
Perry	24	24	0
Pike	20	19	– 1
Porter	100	87	– 13
Posey	29	23	– 6
Pulaski	24	17	– 7
Putnam	40	32	– 8
Randolph	51	31	– 20
Ripley	25	28	+ 3
Rush	30	24	– 6
St. Joseph	259	189	– 70
Scott	22	19	– 3
Shelby	28	30	+ 2
Spencer	32	26	– 6
Starke	30	22	– 8
Steuben	41	39	– 2
Sullivan	29	27	– 2
Switzerland	8	5	– 3
Tippecanoe	128	79	– 49
Tipton	23	20	– 3
Union	6	7	+ 1
Vanderburgh	183	138	– 45
Vermillion	36	21	– 15
Vigo	142	103	– 39
Wabash	41	36	– 5
Warren	12	6	– 6
Warrick	28	33	– 5
Washington	25	21	– 4
Wayne	110	70	– 40
Wells	28	22	– 6
White	39	30	– 9
Whitley	28	26	– 2

The U.S. Bureau of the Census defines gasoline service stations as establishments primarily selling gasoline and automotive lubricants. Usually these establishments also sell tires, batteries, and accessories and perform minor repair work and services. "Garages" are included if they derive more than one half of their receipts from the sale of gasoline and automotive lubricants. The Census Bureau definition of gasoline service stations thus excludes certain retail stores, such as tire stores or convenience food stores, that have gasoline pumps.

The availability of gasoline may not have changed much from the motorist's point of view. At the intersection where three stations once competed for the gasoline dollar, there may now be only two stations. But the character of a corner may have changed, with a full-service station being replaced by self-service pumps that are part of an "Open All Night" food store. Large repair facilities at shopping centers may also offer gasoline to the passing motorist. Some motels offer self-service pumps. Not only has the structure of the business undergone some changes, but land use within cities and on highways has changed.

The decline in the number of the gasoline service stations is not uniform. In fact, the accompanying table of the number of gasoline service stations for Indiana counties shows that 5 counties (Brown, Jasper, Ripley, Shelby and Union) actually had an increase in number of stations from 1972 to 1977. Two counties (Clinton and Perry) had no change, and the remaining 85 counties all registered losses in the number of gasoline stations. Marion County had 201 fewer stations in 1977 than in 1972. In 1972, 13 counties had 100 or more stations; in 1977 only 9 counties had over 100 stations.